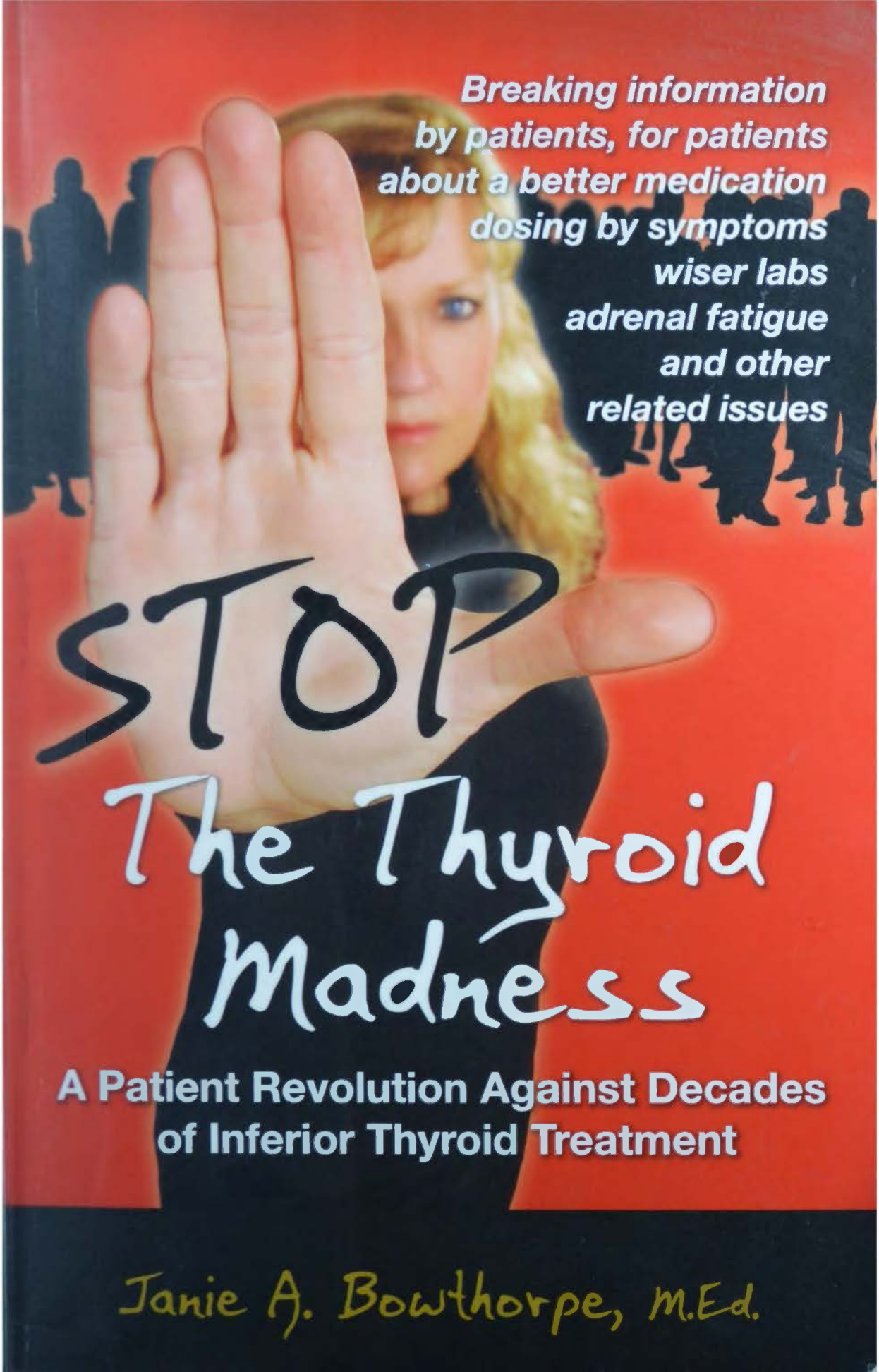
Breaking information
by patients, for patients
about a better medication
dosing by symptoms
wiser labs
adrenal fatigue
and other
related issues
STOP
The Thyroid
Madness
A Patient Revolution Against Decades
of Inferior Thyroid Treatment
Janie A. Bowthorpe, M.Ed.

FINALLY, A GUTSY AND REVOLUTIONARY PATIENT-TO-PATIENT BOOK AGAINST A FIVE-DECADE, WORLDWIDE MEDICAL SCANDAL INVOLVING HYPOTHYROID DIAGNOSIS, TREATMENT, MEDICATIONS, AND ADRENAL FATIGUE!

YOU WILL LEARN THAT:

- *The TSH lab test is a failure for diagnosis and treatment.*
- *Patients report many lingering hypothyroid symptoms while on T4-only medications like Synthroid and Levoxyl.*
- *A far better treatment has been there all along and to which patients are returning.*
- *A large percentage of hypothyroid patients have adrenal fatigue and/or low ferritin, both which need treatment.*
- *A patient revolution has produced far better treatment strategies that work.*

"I was shocked when I stumbled onto Janie's compiled information that explained why I had depression and weight gain, both which have now gone away." *~Carol Lyn, thyroid patient*

"To say I was sick of doctors telling me I was normal is putting it mildly. I am so appreciative of what patients are learning and sharing, which has changed my life." *~Kimberly, thyroid and adrenal patient*

JANIE A. BOWTHORPE, M.ED. became a thyroid patient advocate in 2002 after a complete turnaround with the use of desiccated thyroid. She is founder of several patient-to-patient thyroid groups, as well as the Internet's most revolutionary, informative and progressive thyroid patient website, **www.stopthethyroidmadness.com**

ISBN 978-0-615-14431-3
51995
9 780615 144313
HEALTH AND FITNESS
$19.95 US
Laughing Grape Publishing

STOP THE THYROID MADNESS

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A Patient Revolution Against Decades of Inferior Thyroid Treatment

JANIE A. BOWTHORPE. M.ED.

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Every effort has been made to make this book as complete and accurate as possible. However, there may be mistakes, both typographical and in content. Therefore, this book should only be used as a guide, not as the ultimate source of information on thyroid, adrenal and related health issues. Furthermore, this book contains information that is current only up to the printing date.

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Laughing Grape Publishing
POB 263
Florence, Colorado 81226

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Library of Congress Cataloging-in Publication Data
Bowthorpe, Janie A
Stop the Thyroid Madness: A Patient Revolution Against Decades of Inferior Treatment /Janie A. Bowthorpe. M.Ed.
Includes bibliographical references and index. |
ISBN 978-0-615-14431-3
1. Hypothyroidism - Popular Works I. Title

LCCN: 2008901434 LOC Classification: RC648-665 Dewey: 616.4/44
Cover design by Chantelle Griffin-Boudreau of Toronto

Thanks Donnie

Dedicated to "Miserable Mom"–the handle of a gal who posted on a health website, got a lousy answer from the doctor which only kept her sick, and who was the final impetus for me to start the Stop The Thyroid Madness Revolution with sweet revenge.
I hope you find this book.

ACKNOWLEDGEMENTS

Not one inch of this book would have been possible without the throngs of thyroid patients worldwide who have gathered on internet groups, asked their questions, demanded change from their doctors, taken chances with their treatment, and shared it all so we can learn from each other. I was one of those patients, and I've worked with and been blessed by countless others.

The internet has been a godsend for thyroid patients to find out that we were never alone in our compromised lives. In fact, we were both amazed and angered by our similar physical and emotional symptoms of a five-decade thyroid treatment scandal. The internet has also given us a place to research, study, and implement change in thyroid treatment while we sat in our own homes. God bless the World Wide Web and all patients who have come to it.

Out of this newly-hatched patient revolution has risen many spectacular thyroid patients. The following are those I have worked with most closely. In a completely random order (since they are all incredible), they are: Valerie Taylor, one of the best thyroid/adrenal patient advocates in the world in the area of adrenal issues; Kerry Bergus, a thyroid patient who shined in her knowledge about children's issues with thyroid problems; Phil Georgian, a thyroid/adrenal and hypopituitary patient who specializes in Men's issues and has a knack for details; Missy Hartman, a thyroid/adrenal patient advocate who took the time to specialize in low ferritin, iron, and B12; and Perry Ross, a thyroid/adrenal patient with an interest in men's issues and whose wit, wisdom and creativity has kept us all laughing.

There is Joyce Bickford, a thyroid/adrenal patient who shares her important experience and knowledge with other RAI (radioactive iodine treatment for hyperthyroid) patients; Bob Harvey, a thyroid/adrenal/hypopituitary patient who has given so much of his time specializing in men's issues, including low testosterone; Lisa, a thyroid patient who learned the ropes about thyroid disease and mental health issues with her friendly personality; Stephanie Buist, a thyroid cancer/adrenal patient and doctoral student in Naturopathy who is a top patient expert on iodine use; and Lynda, our UK thyroid patient advocate who took the helm of the Natural Thyroid Hormones group to keep everyone in line, as well as Linda and Tracy.

Pats on the back go to Deborah, who took on the Real Thyroid Help forums and who is brilliantly assisted by her crew of volunteer patient forum leaders. It's another splendid example of patients giving feedback to other patients so they can approach their doctors wisely, intelligently and with courage.

Friendship, great laughs, and shared wisdom abounds when you have friends and hypothyroid comrades such as Sandy, Kirsty, Helen Trimble, Kiki, and Betty.

I am extremely indebted to the creativity of Chantelle Griffin-Boudreau of Canada for her extremely talented graphic designing skills for the cover of this book; Kerry Bergus, whose editing skills gave more refinement to the transcript; Valerie for her recommendations in the T3 and adrenal chapters, plus Perry's early comments on the adrenal sections; and Desarie Kramer and Connie Aguilar who knew what to do with my hair for the cover, as well as Ginger Ognicek of CTM Photography.

And no thyroid patient would be where they are today without the wisdom of doctors like David Derry, MD; Barry Durrant Peatfield, LRCP MRCS, John Dommisse, MD; Joseph Mercola, DO; Bruce Rind, MD; Michael Lam, MD; Gina Honeyman DC; and John C. Lowe, DC. Books which have inspired us beyond words have included *The Great Thyroid Scandal and How to Survive* It by Dr. Barry Durrant Peatfield, and *Safe Uses of Cortisol* by Dr. William McK Jeffries. And last

but not least, the book which was the catalyst for it all by Dr. Broda Barnes: *Hypothyroidism: The Unsuspected Illness.*

Finally and just as importantly, thanks to my husband for preparing many meals, never complaining when his wife spent innumerable hours on the computer (probably because it allowed him to watch poker, boxing and hunting shows on TV), and having patience with my slew of expletives when I got frustrated; to my sons Aren, Micah and Leigh for their assistance with software or techniques when I was about to bang my head against the wall; and to my cat Hershey for continually trying to sit in my lap when I did not want him there.

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PREFACE

Disgust can have sweet effects. It was around Summer of 2006, and I had been observing a large health website for a few months. On the thyroid forum, I was seeing certain posters disappear, one by one, to post no more. Why? I could see the trend. If they dared to mention Armour to someone else rather than the Synthroid praised by the doctor; if they dared to disagree with the doctor that the TSH is a good treatment guide; if they dared to say that the free T3 may be a better lab, they were being kicked off. It was disgusting.

It's also where I first saw the words of a gal who called herself Miserable Mom. She described a slew of miserable symptoms, only to be told by the well-meaning but horrifically uninformed doctor that her two grains of Armour were adequate and from a thyroid standpoint, there wasn't more to do. I was appalled. She was clearly underdosed, had been miserable for ten years, and was going to stay so based on that forum advice.

And that very day, out of my anger and disgust, is when the Stop the Thyroid Madness ball started to roll in my mind. If doctors were going to continue to be as brainless as a block of wood–leaving patients sick, confused and tired–a different direction had to be taken: patients educating patients, and that information to be taken assertively and confidently into the doctor's office.

This book is not my opinion, my observation, my direction. It represents the opinion, observation and direction of hundreds of thousands of patients who have struggled together to find answers via numerous internet groups and forums. I am simply the messenger who named the revolution and compiled

the brilliance of what thyroid patients have learned.

I would say that nothing in this book is perfectly on target. But most is extremely close, some is right on target, and the rest will evolve as this revolution continues.

And the hope of this book? That you will become enlightened and empowered by the hard-earned knowledge and success given in these pages, and carry that information into your doctor's office, demanding a far better treatment protocol as well as respect for your own knowledge and inner wisdom. And if you don't get it from one doctor, you will move on...and move on again until you do. We, as patients, will change the blundering thyroid treatment medical monster from the bottom up with our knowledge, our persistence, and our pocket books.

p.s. I frequently use the word "Armour" in this book, a popular brand name of desiccated thyroid, just for simplicity's sake. Its use can also represent any brand name desiccated product, as there are several fine ones.

INTRODUCTION

My Story

It wasn't more than a few years ago that I was sitting on the front cedar deck of my home gazing at the red hue of the late afternoon clouds...and crying. Granted, I was in a happy marriage with a tall cowboy, and I was awed by the views of mountains and valleys from my front and back decks. When you have lived in the flatlands of Texas for most of your life, nothing beat what I could see from my house now.

But, my ability to physically live my life was going down the tubes.

Sure, the previous 20 years had been difficult enough, even with 17 of those years on Synthroid and later Levoxyl. But I had managed and made the best of it, even if frustrated, limited, and often miserable.

Now, I was seeing an even more debilitating decline for two years. I couldn't be on my feet for more than 30 minutes without extreme tiredness setting in and the soles of my feet hurting as if I was standing on glass shards. If my husband and I attended any event that involved standing, I was now forced to bring a small moveable stool to sit on.

Even worse, if I dared go beyond my already-limited energy range, I would move into the same bizarre physical overreaction I had been living with for two decades. Just the day before, after I had used sand paper to smooth the edges of a small wood project...and while sitting...I ended up no less exhausted than a marathon runner. My heart pounded in my

chest. The fatigue was nauseating. I had terrible insomnia that night. And I was disabled the next day.

When my husband came out and sat by me on that deck, I had to look straight into his eyes with tears in my own and say "I need your help to apply for Social Security Disability." I also knew that I would become dependent on my husband to even grocery shop. It was a low, low moment.

How it all began

It was 1979. I was pregnant with my second child, and around the 8th month, I began having very strange mental aberrations. I would wake up feeling strangely disconnected from my body, as if my thoughts were far, far away and it was difficult to express them. It was frightening, but it ceased when I gave birth.

But after that birth, I was to begin nine months of hell while nursing my son. I had multiple illnesses that included a minimum of four colds (just as one ended, a new one would begin), a bronchial infection, a flu-like illness and finally viral pneumonia. And two-and-a-half years later, I had a similar scenario after the birth of my third son while nursing, namely, a succession of viral illnesses followed by bacterial pneumonia and the worst flu I'd ever had months after that.

Finally, the illnesses stopped, but a new frustrating saga was to begin. I was unable to hold my babies or toddler for more than a few minutes. My arms would feel like dead weights with extreme weakness. I had to continually pass my young children over to my husband.

By the time I was 29 years old and had three healthy young sons, I concluded that my easy arm fatigue and poor stamina was due to being out of shape. I then decided to begin a career as a fitness instructor, receiving top notch certifications from the Aerobic Institute in Dallas. I started my own fitness business in the basement of a church when I was 30 years old, teaching five one-hour classes weekly.

But something quite bizarre was going on after each and every class. Instead of recovering from the workout, my heart rate would stay high, and by 8-9 pm each evening, I would be a

basket case of debilitating and profound fatigue. When I went to bed for the evening, my heart would pound in my chest as if I had an internal hammer. I was as weak as if someone took a drinking straw to my body and sucked out all the energy. My fatigue would be so pronounced that I felt nauseous. I would have insomnia for hours, and I would sweat like a pig. The next morning, I felt no better than if I had been run over by an 18-wheeler and smashed against a concrete wall.

Thinking this strange reaction would pass, I prevailed, building my business and even created a fitness newsletter for my clients. But it didn't go away. And I was yawning through any school event I attended for my sons, and suffering.

I made an appointment with our doctor, and via a TSH lab test, he pronounced me "borderline hypothyroid" with a TSH of 5.2. And I was placed on Synthroid. When my TSH came down into the 2's, which was within the so-called "normal" range, I was pronounced adequately treated and would have no more problems! Needless to say, I was thrilled since I loved my new fitness profession. I looked forward to building a strong business.

Wrong.

After 2 years of teaching fitness classes, I was forced to give up my beloved career due to the continuing bizarre and debilitating reaction to each and every class. I was just plain exhausted to the bone, and it was compromising my abilities as a mom, as well.

Nearly two decades of problems

And for the next 17 years, while "adequately treated" on Synthroid and later Levoxyl with a "target TSH", I was to go through more periodic hell.

- I was unable to do active outdoor activities with my children without paying a price.
- I was unable to spend time shopping or long walking with friends due to my lack of stamina.

- I was limited in my abilities on vacations with my family due to my poor stamina and highly extreme reactions to exercise or the sun.
- I was unable to play Volleyball on a local neighborhood team due to paralyzing weakness in my arms just 15 minutes into the game.
- I had to choose jobs carefully to avoid long-term standing and movement.
- I had to deal with chronic low-grade depression, even though I was "adequately treated".
- I had to take frequent naps to get by.
- If I tried to do any activity away from home, I was forced to take a day and more off to 'recover' from the debilitating results.

I remember being on vacation with my family, walking across a large field to view old archeological mounds. It was a beautiful and hot sunny day, and the terrain was flat. When we returned to the car an hour later, and resumed our driving, my debilitating fatigue and overreaction became so profound that I told my husband I needed to be taken to a hospital. We kept driving to our next motel, though, and I collapsed in bed.

I spent thousands upon thousands of dollars trying to find out what was wrong over those years, and amassed a thick stack of paperwork and lab work, to no avail. And, I was always "adequately treated" with thyroxine T4-only medications. I even raised my medications to further lower my "target" TSH.

Tests, treatments and too many diagnoses

During these 17 years, I drove thousands of miles, saw a broad slew of doctors and was tested and experimented for every condition imaginable:

- I did tests for hypoglycemia;
- I was a guinea pig for a doctor's hormonal treatment;
- I had a painful muscle biopsy;
- I did the adrenal ACTH STIM test;
- I tried homeopathic remedies;

- I had blood drawn for every imaginable hormone problem;
- I did a treadmill test;
- I took beta blockers;
- I wore a heart monitor;
- I did bizarre and painful neurological tests.

I was told I was depressed. I was told I had Chronic Fatigue Syndrome (CFID'S). I was told I had an unusual "energy metabolism disorder." I was tested for Glycogen Storage Disease. I was told I have a serious but unknown "mitochondria disorder"–a prognosis which would only get worse.

And on my own, I saw similarities to what I had to Dysautonomia, and named my condition "post-exercise dysautonomia". But never, ever was there any conclusive diagnosis as to what I had, and 'it was never my thyroid'.

When my hair became thinner and thinner, I was simply told I had alopecia, and there wasn't much they could do.

And like millions of silent patients around, I became of member of the Yaya Hypohood Psychiatrists Club (see Chapter 10)—falling for the premise that I MUST have a psychological problem causing all this. What a bunch of hogwash. It was a waste of my money.

The façade of looking normal

And the most remarkable aspect of all the above: I doubt *anyone* who has known me would say I appeared to be nothing less than normal. Namely, though all the above occurred just as you read it, I still raised three children, had my own jewelry line, kept up large houses, made each Christmas special, each birthday special, got a Master's Degree, taught continuing education self-help college classes, taught in public school a few years, participated in archaeological digs, and kept exercising by walking. But I paid horrific and nauseating prices often and privately, and I adapted my life all over the place just to be able to do some of the above. Many, many of us are just like this when on a thyroxine T4-only medication like Synthroid or Levoxyl.

By 2002, my physical fatigue and bodily overreactions became so pronounced that I found myself sitting on that front deck with the beautiful sunset, asking my husband to help me apply for Disability. It had been a long road, looking healthy and normal in the eyes of friends and acquaintances around me. I have no doubt that anyone who knew back then would be quite surprised what I was going through. But I was living miserably, typical of an invisible illness. And for all I knew, I now had one foot in the grave.

The beginning of change

But, 2002 was going to be a new beginning.

Because I could do nothing else, I became obsessed with computer research and my computer was smoking. I always think of the five steps of grief as identified by Elizabeth Kübler-Ross: Denial, Anger, Bargaining, Depression, and Acceptance. To my favor, I had never stayed in the "Acceptance" phase very long. I kept denying that I was headed for disability.

And though it took a few months, I found a small Yahoo patient group that mentioned desiccated thyroid, problems of thyroxine-only treatment, and the fallacy of the TSH lab. Picture a character whose eyeballs are pushed forward out of the sockets by springs, and that was me. I found a possible answer! What I was reading seemed to imply that desiccated thyroid, more commonly known by the brand name Armour, was changing their lives.

And I proved it. I found a Nurse Practitioner who would help me switch to Armour in July of 2002, and moved to another NP who had more understanding of dosing. And no kidding...my life began to change 180 degrees!

I first noticed that no longer was I having that bizarre and highly debilitating physical reaction to activity. Gone! Kaput! I had to pinch myself. Was this real? Would it creep back up on me when I wasn't looking? Nope, it didn't. And considering how disabling those reactions to anything physical had been for so long, this in itself was a huge miracle.

As I increased the desiccated thyroid, paying far more attention to symptom elimination rather than simply lab ranges, I next saw my hair and skin soften. I now had hair I could stroke and feel softness rather than a brillo pad. I also now had a healthy oiliness at my roots rather than a week of dry hair before I had to wash it.

Next, I saw an abatement of my chronic low-grade depression. I had an inner smile that I hadn't felt for years and years.

Then I saw my constipation change, my weak arms & legs become strong and my painful feet go away. For the first time in years and years, I could stand for hours and survive!!

And now I could have an active day and NOT have to lie on the couch in front of the 5:30 pm news and fall into a snoozing la-la land. I could come home from an active day and do housework!

Some improvements took longer than others, such as the return of my once-thick hair, but improve they did! And best of all, I regained my energy and stamina.

By 2003, I was a different person, and I loved it. I could stand for long periods of time without an issue. I could exercise without an issue. I could buy groceries without an issue. I could LIVE...without an issue.

Was it and has it been a smooth transition to better health and renewed energy? Nope. When I had regained most of the above, I had to figure out that I had low ferritin, which in turn caused me to slide into iron anemia twice. So I had to correct it twice. I had to give myself far better supplements to meet the new energy demands of my body. I had to correct female hormonal issues possibly brought on by the long years of staying hypothyroid. And I had to deal with highly stressed adrenals. But I got through those boulders on the thyroid yellow brick road.

Until you've been at the bottom of your particular pit, and climbed out, you'll never know what it's like to be human again...to be able to spend hours doing what you love, to be able

to hike again, to be able to be outside again, to be able to run a business, to participate in activities, and to just plain LIVE.

I can now sit on my deck, glancing at the beauty all around me, and then walk down the steps and do whatever I want to do without horrendous consequences!

Common experiences we all share

There are unique and individual facets of my story. Some you might identify with; others you might not. But there are still common factors in my story shared by most any hypothyroid patient around the world. They are:

1. Millions of us on a T4-only treatment are NOT adequately treated
2. Most all of us have lab-obsessed doctors who are not paying attention to our clinical presentations of that failure
3. When we do bring light to those symptoms, we are bandaided with medications to cover them up, or told to see a Psychiatrist/Psychologist
4. We are all being held hostage to the lousy TSH lab and range, and
5. We are all left with symptoms of some kind and of some degree as a result of a substandard treatment, and which can lead to adrenal fatigue.

And on the other side of the coin, just like myself, a growing body of thyroid patients now have the common experience of switching to Armour or other desiccated thyroid products, and feeling *FAR* better. And a revolution for better treatment has arisen among thousands of patients who are standing up against decades of thyroid treatment which has been inferior, rigid and just plain stupid.

I am raising the banner, and I hope you will join with me and the growing body of other thyroid patients who are shouting:

STOP THE THYROID MADNESS!

CHAPTER 1

Thyroxine T4-Only Treatment Gets a Big Fat "F"

It's been matter-of-factly going on for 50 years: a patient is finally given the diagnosis of *hypothyroid* by a doctor, and the prescribed medication is *synthetic levothyroxine sodium*, also simply called *l-thyroxine* or just plain *T4*. Brand names include *Synthroid, Levoxyl, Levothroid, Eltroxin, Oroxine, Unithroid and others.*

We thought we were adequately and competently treated with our thyroid medications. Why? Because our doctors told us we were; because the TSH lab said we were: because doctors know what's right for us.

We've dutifully picked up our prescriptions at our local pharmacy and mindlessly popped our single pill each and every morning. We've felt secure in our treatment and maintained faith in our doctor.

But it's all been blunderingly and scandalously wrong.

How it has happened

From the time they were first created in pill form, T4 medications have been thrust upon the worldwide market and hundreds of millions googly-eyed and trusting hypothyroid patients like a bulldog. It's been used in studies and promoted

in medical journals. It's been underscored in pharmaceutical pow-wows and stamped with approval in continuing education conferences. Your friendly suited pharmaceutical rep has carried it to innumerous doctors' offices with free samples and tasty incentives. Google any brand of T4 on the internet and you'll get a vast slew of results. Billions of dollars have been invested in its promotion, salability and information machine.

And what a waste of time, money, and energy for patients. Behind all pharmaceutical promotions are millions of thyroid patients who have been left poorly treated with T4-only. It's a treatment which has, to one degree or another, diminished their quality of life as well as their health.

The failure of T4-only treatment in my own family

Many years before I was born, when she was around 21 years old, my mother developed hyperthyroid before she became hypothyroid. A hyperthyroid condition refers to an over-active thyroid, causing it to produce an overabundance of thyroid hormones. She became as thin as a bean pole. And the recommended solution was surgery to remove most of her thyroid, leaving a very small portion.

Years later, after she married and had two young children, her hyperthyroidism redeveloped complete with bulging eyes–a common symptom. (And as a young child, I thought my mother was turning into a large insect.) This time, they used radioactive iodine[1] treatment to kill off the small remaining part of her thyroid to prevent further damage from the hyper state.

And sometime after the RAI, when sluggishness of hypothyroid was starting to appear, she was put on levothyroxine sodium, also called l-thyroxine or simply T4...a "new and modern" hypothyroid treatment. T4, the thyroid storage hormone, is the most abundant hormone produced by the thyroid. Its main function is to convert to the active and life-giving hormone T3. It was meant to be a story with a happy ending.

1. 22 reasons not to have RAI here: *http://atomicwomen.org/Top20Reasons.htm*

But it turned into a Levothyroxine nightmare

As time progressed, she developed chronic and debilitating depression, and she became an invisible member of the YaYa Hypohood Psychiatrist Club (see Chapter 10). She spent countless hours in counseling, either with the professionals recommended by her doctor, or with a qualified minister of her church.

By the time I was ten, her depression was so severe that she submitted herself to Electric Shock Therapy (EST), a seemingly barbaric procedure which was thought to alter the brain and improve depression. Never was a treatment more futile. Not only did it dull her sharp intelligence, she remained depressed and was put on anti-depressants for the rest of her life.

Over the years while on T4, she gained weight and dieting produce few results. She had to nap daily. She required long hours to sleep. She never had the stamina of her friends. She couldn't stand on her feet long. She had to forgo certain activities. Her hair was forever dry. She developed high cholesterol later in life, and had to have a balloon procedure on her heart. Though she lived until she was 83, and had some memorable times, her life was always one of compensation and compromise.

And though no one figured it out at the time, and my mother went to her grave without knowing...all the above were due to her inadequate T4-only treatment: her pill-treated depression, her weight gain, her poor stamina, her heart issues and high cholesterol, the compromises of her activities.....all of it. It was to be a treatment which leaves everyone hypothyroid to one degree or another.

Common to millions of those on a T4-only treatment

The details and severity may be different, but the outcome is the same: a life that forever deals with the effect of inadequate thyroxine treatment. And almost as bad are the countless times we noticed a symptom here and there, complained to

our doctor, only to be told it's something else, and here's another pill to relieve it.

"But I feel fine!" you may exclaim as you read this.

And I believe you. But I also know three facts from my own experience and from communicating with or observing tens of thousands of T4-only thyroid patients over the years:

1. No matter how fine you feel, you are living with symptoms related to an inadequate treatment.
2. Feeling fine is subjective, and thyroxine-treated thyroid patients lower their standards of what "fine" is, and
3. The body was not meant to live on a storage hormone alone.

T4 is simply that–*a storage hormone*–tucked away into your cells for future use, just as you tuck away that jar of grandma's jam in the pantry for another time. Yet a healthy thyroid makes not just the storage T4, but also direct T3, T2, T1 and calcitonin. In other words, there's more in the house than just what's in storage.

Lingering symptoms while on T4-only treatment

Not long ago, I asked a large body of thyroid patients, who were now on desiccated thyroid like Armour (which contains all the thyroid hormones your own thyroid produces–T4, T3, T2, T1 and calcitonin), to tell me what symptoms they experienced while *"optimally" treated*[1] on Synthroid, Levoxyl or any other synthetic T4-only medication. The resulting list was staggering: *See 'Lingering Symptoms While on T4-only Medications," on page 29.* The list is not only profound, but if you real-think about the implications, it's disgusting. It's not only a long tally of symptoms experienced by patients while on thyroxine-treatment, but nearly all of them are also untreated hypothyroid symptoms! In other words, the symptoms reveal that your

1. Note that by *optimally treated*, I was referring to a so-called target TSH, i.e. a TSH lab number within the so-called "normal" range.

Lingering Symptoms While on T4-only Medications

Less stamina than others	Hives
Less energy than others	Exhaustion in every dimension-physical, mental, spiritual, emotional
Long recovery period after any activity	Inability to work full-time
Inability to hold children for very long	Inability to stand on feet for long periods
Arms feeling like dead weights after activity	Complete lack of motivation
Chronic low grade depression	Slowing to a snail's pace when walking up slight grade
Suicidal thoughts	Extremely crabby, irritable, intolerant of others
Often feeling cold	Handwriting nearly illegible
Cold hands and feet	Internal itching of ears
High cholesterol	Broken/peeling fingernails
Bizarre and debilitating reaction to exercise	Dry skin or snake skin
Hard stools	Major anxiety/worry
Constipation	Ringing in ears
No eyebrows or thinning outer eyebrows	Lactose Intolerance
Dry hair	Inability to eat in the mornings
Hair loss	No hair growth, breaks faster than it grows
Dry cracking skin	Joint pain
Nodding off easily	Carpal tunnel symptoms
Requires naps in the afternoon	No appetite
Inability to concentrate or read for long periods of time	Fluid retention to the point of Congestive Heart Failure
Forgetfulness	Swollen legs that prevented walking
Foggy thinking	Blood Pressure problems
Inability to lose weight	Varicose Veins
Always gaining weight	Dizziness from fluid on the inner ear
Inability to function in a relationship with anyone	Low body temperature
NO sex drive	Raised temperature
Moody periods	Tightness in throat; sore throat
PMS	Swollen lymph glands
Excruciating pain during period	Sore feet (plantar fasciitis); painful soles of feet
Nausea	Overreaction to cold medications
Swelling/edema/puffiness	Allergies (which may also be related to adrenal fatigue -see Chapter 5)
Aching bones/muscles	A cold bum, butt, derrière, fanny, gluteus maximus, haunch, hindquarters, posterior, rear, and/or cheek. Yup, really exists
Osteoporosis	
Bumps on legs	
Acne on face and in hair	
Breakout on chest and arms	

levothyroxine T4-only treatment leaves you hypothyroid! Nevertheless, most all TSH-obsessed doctors proclaim you are "normal"!

A second ironic qualification was this: *to* ONLY *list symptoms they had while on a* T4*-only treatment which have now been highly improved or eradicated since being on desiccated thyroid.* Yes, these symptoms had all been lessened, improved or removed when these patients had switched to desiccated thyroid like Armour, and dosed according to the elimination of symptoms first and foremost, rather than simply labs. We'll cover desiccated thyroid in the next chapter.

The history of T4 use

At this point, you may be asking "If T4-only hypothyroid medication is so inadequate, why did it come into existence anyway?"

Its history starts around 1914 when the thyroid hormone T4 was first isolated from the rest of the thyroid by a biochemist named Edward C. Kendall, which was quite an accomplishment. In association with the University of Minnesota, he was the Head of the Biochemistry Section in the Graduate School of the Mayo Foundation. You can find biographical information on Kendall on the *www.nobelprize.org/* website, and you'll note that in 1950, he received a Nobel Prize for discovering the activity of cortisone. His work as to the isolation of T4 was reported in the *Journal of Biological Chemistry* (JBC), and reveals that the isolation came from 6500 pounds of hog thyroid glands.

Twelve years later, in 1926-27, British chemists Charles Harrington and George Barger were the first to produce and use synthetic thyroxine T4, and the New York Times reported that fact in the Dec. 12, 1927 issue, titling the article *Britons discover synthetic thyroxin* by T. R. Ybarra. Both also wrote the 1927 book *Chemistry of Thyroxine–Constitution and Synthesis of Thyroxin.*

The first promising experiments with thyroxine

Thyroxine was first used on two patients, with the first being a 61 year old housewife named Mrs. A.S. who had success with previous hospital use of thyroid extract (older name for what we now call desiccated thyroid).

Observations of Mr. A.S. included that she was mentally dull, overweight, swollen, and her face appeared harsh and dry. She was given thyroxine T4 intravenously, and they noted changes. She was "much brighter and more cheerful, her swellings were diminishing, and wrinkling was obvious on the backs of the hands and under the eyes." When they removed the treatment, they saw that her skin became harsh once again, and her basal metabolic rate declined.

The second case was a 35 year old housewife, Mrs. M.M. who was diagnosed myxoedema (older term for hypothyroid) in 1920, and who had not taken her thyroid extract (older term of desiccated thyroid).

When admitted to the hospital in 1926, Mrs. M.M. had a lack of energy and noticeable bodily swellings. After three intravenous injections of synthetic thyroxine, they noted that the thyroxine raised her basal metabolic rate, with a rise in her temperature and pulse. Additionally, she lost weight due to a "great loss of fluid from the system."

Both cases of Mrs. A.S. and Mrs. M.M. revealed that the use of T4 had positive results. But thyroxine never became a worthy treatment. Why? Because relying on an intravenous treatment was not practical. And thyroxine was known to have instability in the presence of light and air. Additionally, desiccated thyroid was working well during that time anyway.

The fact that desiccated thyroid was successful (and remained so for many decades), and synthetic T4 *was used intravenously and unstable, should have ended the* T4 *experiment.*

But T4-only as a thyroid treatment was to return to the medical and public eye thirty five years later. The late 1950's and early 60's were a time when pharmaceutical companies started to heavily market and mass produce their products with dollar signs in their eyes. Additionally, it was also a time

when false and negative claims were made against desiccated thyroid in several medical articles and journals. It was later identified as a hoax, but the damage was done.

By 1955, Knoll Pharmaceuticals of Germany developed the ever well-known Synthroid, a thyroxine now in tablet form. Dr. David Derry, a noted physician in Canada who graduated from medical school in 1962, stated to me in an email that he noticed a strong swing towards thyroxine treatment in 1963.

A faulty assumption

Today, looking back at the early positive results with thyroxine of Mrs. A.S. and Mrs. M.M, and reading numerous studies and articles about the efficacy of thyroxine use, one might come to a knee-jerk conclusion that levothyroxine sodium, aka T4, is and has always been a good product in the treatment of hypothyroid. Why else would my doctor prescribe it? Why else would there be hundreds of millions on these medications? Even the Synthroid website states:

> *Synthroid offers safe and effective treatment to patients like you every day. Your thyroid medication is carefully prescribed by your doctor to achieve a delicate balance of thyroid hormone in your body.*

Additionally, you will find patients who will state they are pleased with their T4-only treatment and the alleviation of some symptoms.

Thud

Yet, a pertinent and reflective question remains: how much relief are you really getting from a T4-only treatment? Is 15% enough? Is 30% enough? What if there's no noticeable relief?

Because the same conclusion is found in the experience of millions of patients worldwide who find out the truth: T4-only thyroxine treatment has a negative pattern of improvement and outcome in all thyroid patients, as shown in the compiled list of continuing symptoms earlier in this chapter.

In other words, in contrast to whatever improvements from a T4-only treatment can be documented in journals, implied in research, stated on websites or expressed by patients, the accounting of negative results is so widespread throughout the world that I and a worldwide body of patients can conclude without a doubt that thyroxine treatment is overall a huge and miserable failure!

In fact, my way of explaining it is this: *A T4-only medication treatment does the job to the same degree that an elevator which only rises to the fifth floor of a 50-story building "does the job."* Sure, you may feel slightly better, and notice some results, but you are still left with a plethora of hypothyroid symptoms due to an inadequate treatment.

Why has T4-only treatment been a huge failure?

Because the human body is not, and never was, meant to live on a storage hormone alone. You are not meant to live on water alone. You are not meant to live on food alone. You are not meant to live on T4 alone. Instead, your body is meant to optimally live on the entire compliment of what your thyroid produces: T4, T3, T2, T1 and calcitonin.

As a result, T4-only treatment has earned an F on the report card of thyroid treatment for the vast majority. Millions of patients all across the world are making it clear that they continue to have lingering symptoms of hypothyroid, whether perceived to be mild or severe, while on a T4-only treatment. We don't need research papers, double-blind studies, medical articles or glowing words in a pharmaceutical handout to tell us that *Synthroid, Levoxyl, Levothyroxine and all other T4-only thyroxine medications have completely failed us and their use has simply lined the pockets of their makers.*

CHAPTER 2

So What Do Pigs Have To Do With It?

"I've a right to think," said Alice sharply,
for she was beginning to feel a little worried
"Just about as much right," said the Duchess, "as pigs have to fly.... "

-Alice in Wonderland by Lewis Carroll

"Oh sure. I'm going to have more energy when pigs fly."

Yup, that's exactly the sarcastic idiom I would have used if once upon a time, when I was on Synthroid and later Levoxyl, someone had predicted that I was going to have more energy thanks to a pig. A pig? Nope, I couldn't see a pig helping me. And I had spent too many years of living with constant compromises and miseries in my energy levels, even while a slew of doctors stated it was not my thyroid since I was "adequately treated" and my TSH was "normal."

But sometimes you just have to eat your bacon. Because lo and behold, not only did the pigs fly, they soared after I had switched from a T4-only medication to a porcine thyroid product, once known as thyroid extract, but now more commonly called desiccated thyroid, or natural thyroid.

More than a century of desiccated thyroid use

If your ancestors had an identifiable thyroid problem, there's a good chance they were treated with desiccated thyroid. Desiccated thyroid was to see its modern medical debut in the late 1800's. And if you put recent dates together, that means hypothyroid patients were using this product successfully for more than five decades before the pharmaceutical levothyroxine money-eyed assault in the late 1950's and early 1960's.

In the early days, desiccated thyroid was either from pigs or sheep. I own a very early bottle of Armour desiccated thyroid, still with the product inside and sealed with a cork. And on the vintage browned label, it states THYROIDS DESICCATED and defines the powder within as fresh thyroid gland of the sheeps [sic].

Today, desiccated thyroid by prescription, also called natural thyroid or thyroid extract, is almost exclusively made up of the whole porcine thyroid gland. Perhaps pigs were ultimately chosen because their tissue can be nicely compatible with our own.

Desiccated refers to the fact that the approved and inspected pig thyroid is frozen, minced, dried and milled into a fine powder. Several batches are probably combined to create a lot of the full strength porcine thyroid powder. Testing is then done to make sure it meets the established specifications.

There are a few over-the-counter desiccated thyroid products made from bovine, and one in particular is made by Nutri-Meds, but this book will mainly focus on the prescription porcine varieties. If your religious beliefs or vegetarian stance create concern about the use of pork, see Addendum B.

The difference between T4-only and desiccated thyroid meds

Unlike synthetic T4-only medications like Synthroid, Levoxyl and the others, desiccated thyroid provides the exact same hormones that your own thyroid would be giving you if healthy-not just T4, the storage hormone, but direct T3, as well as T2, T1 and calcitonin. Prescription desiccated thyroid is measured according to specific amounts of T4 and T3 in one

grain–38% and 9% respectively. It's also stated to be approximately 80% T4 and 20% T3. The Armour website[1], states that the ratio is 4.22 parts of T4 to one part of T3.

Rumor occasionally goes through the mill that desiccated thyroid is nothing more than T4 and T3 since they are the only thyroid hormones mentioned in the paper insert that comes with Armour. But Forest Laboratories, Inc., the maker of Armour, assures patients that T2, T1 and calcitonin are simply not measured and are not removed...and are there.

Examples of brands of prescription desiccated thyroid include[2]:

- Armour
- Naturethroid
- Westhroid
- Canadian Thyroid by Erfa
- Generic Thyroid
- Thyroid-S of Thailand

The brand name Armour by Forest Labs is the most well known and oldest name on the market. Naturethroid and Westhroid are distributed by RLC Labs (formerly Western Research Labs). Generic thyroid can be made by Time Cap Labs or called Qualitest. Patients have experienced generic brands to be weaker.

Many thyroid patients are using a desiccated thyroid called Thyroid-S from Thailand with excellent results. At this writing, Biothroid by Bio-Tech Pharmacal, Inc. has a temporary hold on its product, but hopes to see a comeback. Canada's version is simply called Thyroid and is distributed by Erfa. Australia's desiccated thyroid is usually compounded by local pharmacists.

Some manufacturers like Forest Laboratories, Inc. press the desiccated thyroid powder into a tablet (aka Armour), and others put it in capsule form. It can come in the following

1. *www.armourthyroid.com/faq.html#q4*
2. See Addendum A for all ingredients for all

strengths: 1/4, 1/2, 1, 2, 3, 4 and 5 grain tablets depending on the pharmaceutical distributor. With most, one grain equals 60 mg; others will equal 65 mg.

All desiccated thyroid powders used in the prescribed thyroid medications are labeled Thyroid USP, meaning they meet the high quality and strict standards of the United States Pharmacopeia (USP). The USP is an independent, science-based public health organization, and a simple way of saying it is they set the standards for what would constitute a good quality medication. You can view their website here: *www.usp.org/aboutUSP/*. By the way, next time your doctor claims that desiccated thyroid is unstable or unreliable, remind them that strict USP standards are followed by the makers of prescription desiccated thyroid, i.e. unstable and unreliable are not in the dictionary of a USP standardized product.

Australian compounding pharmacies use the same Thyroid USP standards desiccated powder. Sriprasit Pharma Co. Ltd. in Thailand, who makes a form of desiccated thyroid called Thyroid-S, state they also use the same Thyroid USP standard desiccated powder.

Five components of desiccated thyroid

Desiccated thyroid contains the same five well-known hormonal components as your own thyroid. They are:

T4 (also called l-thyroxine, levothyroxine, or thyroxine) is the 4-iodine-molecule storage hormone of the thyroid. It's sometimes called the primary hormone, since approximately 80-93% of what your thyroid produces is T4. T4's main function is to convert to the active hormone T3 as your body needs it beyond the T3 given directly. T4 also plays a role in brain formation, as well as brain function. Most T4 is bound by transport proteins; a small amount is "free", i.e. unbound and usable. T4 is meant to cross the cell membranes from your blood.

T3 (also called triiodothyronine) is the 3-iodine-molecule "active hormone" of the thyroid, and is approximately 7-20% of your total production. It has the greatest effect on your body's energy level and overall health and well-being. T3 makes its appearance when T4 loses one of its molecules to become T3–a peripheral (away from the thyroid gland) conversion of T4 to

T3. But it's also made directly. It can be four to ten times more active than thyroxine T4. Most T3 is bound by transport proteins: a small amount is "free", i.e. unbound and usable. T3 is meant to cross the cell membranes from your blood.

T2 (also called diiadothyronine, is the 2-iodine-molecule hormone which may play a role in the production of the deiodinase enzyme that helps convert T4 into T3. It also appears to have some effect on metabolism, thus playing a role in burning body fat.

T1 (also called monoiodothyronine or just amine) is one which may play a role in keeping thyroid function in check and influencing the heart.

T0 is mentioned in some literature as a fifth thyroid hormone. But the information I can find is minimal. If it exists, it may play the same role as T1.

Calcitonin, which is primarily secreted by your thyroid, responds to increased levels of calcium in the blood. It inhibits the release of more calcium from your bones to the blood, and can play a good role in the prevention or reversal of osteoporosis, as has been experienced by several patients who switched to desiccated thyroid and dosed high enough to alleviate symptoms.

The first documented use of desiccated thyroid

The first successful, medically documented use of desiccated thyroid (then called thyroid extract, or glandular extract) occurred in 1891 with a 46 year old woman named Mrs. S. It was later documented in the March 1920 *British Medical Journal* by George R. Murray, MD[1]. Murray is stated to be the first doctor to use animal extractions to treat hypothyroidism. (and good for him!) Thyroid Extract at that time was from sheep (but soon was switched to porcine).

When Mrs. S was in her early 40's, family members noted that her speech and actions were slow, and Mrs. S found housework to be difficult. Her physical features also became enlarged, probably due to water retention. Her physicians noted that she had no interest in seeing strangers, and she was sensitive to cold weather. Her body temperature was always

1. *www.britannica.com/eb/article-9054362/George-Redmayne-Murray.*

low, varying between 95.6 and 97.2, with a pulse between 60-70. She had little facial expression, dry skin, fine and thin hair. Her movements were noted as slow and labored, as was her speech and memory. Her periods had also ceased.

Physicians of that day diagnosed her with an advanced case of hypothyroid, which was then called Myxoedema (and for a short while was also called Gull's Disease, named after Sir William W. Gull, MD, who in 1874 published his observations in five women suffering from hypothyroidism.)

It was decided to inject her with thyroid extract, and within 3 months, great change was noted. Her bodily swellings were gone, and her face had greatly improved in its appearance, as well as expressions. She now spoke more rapidly, answered questions with greater ease, and her memory improved. She was now walking the neighborhood again, and could once more do housework with ease. She was less sensitive to the cold. Her menstruation improved. And her temperatures rose.

Mrs. S was later switched to oral administration (which may have been fried sheep thyroid gland) and by 1918, she was given dry thyroid extract in a tablet form. She maintained her better health for 28 years until she died in 1919. It was documented that she consumed over nine pints of the liquid thyroid extract, which was estimated to come from 870 sheep!

Subsequently, for several decades, patients with Myxoedema (hypothyroid) were treated successfully with porcine thyroid extract (desiccated thyroid or natural thyroid). The porcine may have been chosen because there is little allergy to it.

Medical books and the mention of desiccated thyroid

By the time the 1941 *Goodman and Gilman's Pharmacological Basis of Therapeutics* came out, both thyroxine (Thyroxin, U.S.P.) and dried thyroid gland (Thyroid, U.S.P.) were mentioned, but dried thyroid gland was called the preferred method of treatment. Dried thyroid gland was measured according to its iodine content (whereas now, it's measured according to its T4 and T3 content.)

From the 1951 book called *Modern Medical Counselor* comes the following recommendation on how to treat Myxoedema, which shows desiccated thyroid was still the successful treatment of choice:

> *Some convenient preparation made from the whole thyroid gland substance is the rational remedy for myxoedema. It brings remarkable improvement. The patient feels better, thinks more clearly and looks better. This is likely to be considerable reduction in excess weight*[1].

In the 1970, 4th edition of the classic *Pharmacological Basis of Therapeutics* by Goodman and Gilman, desiccated thyroid was still described positively:

> *Thyroid USP is a highly satisfactory preparation for clinical use. Its continued popularity does not derive merely from a reactionary attitude, although at first sight the preparation might seem to be crude, old-fashioned, and poorly standardized. It is evidently uniformly well absorbed unless it has an enteric coating, and the potency is sufficiently standard that variation cannot be detected clinically if the official preparation is prescribed*[2].

An event occurred around 1963 which caused a turnaround in the popularity of desiccated porcine thyroid and the unfortunate swing towards synthetic levothyroxine, T4-only treatment. The same 1970 4th edition of *Pharmacological Basis of Therapeutics* gave the following clue as to what occurred:

> *A few years ago, a large batch of material came into the hands of a number of distributors in the United States and Europe and, although of proper iodine content, it later proved not be thyroid at all. This episode gave thyroid a bad name because several publications about the unreliability of thyroid appeared before the hoax was uncovered*[3].

1. Page 508
2. Page 1479
3. Page 1479

And it appears physicians from that time on fell for the hoax and the subsequent negative articles without a blink of an eye. Over time, nearly all patients were switched to the highly-touted levothyroxine T4-only medications. Newly diagnosed patients were started on thyroxine. By making this mass change in the way hypothyroid patients were treated, the tragic and far reaching supposition was made that T4 would convert to adequate levels of T3.

Of course, though it's speculation, some patients wonder how much the Knoll Pharmaceutical Company, which first tableted Synthroid in 1955 as levothyroxine sodium, played a part in promoting the switch, as well, via strategic and successful promotion. But that successful promotion of levothyroxine since the 1960's has also resulted in decades of unsuccessful treatment of hypothyroid patients.

Old timers who used to be on desiccated thyroid, and who were switched to levothyroxine, state they saw the return of old hypothyroid symptoms, but didn't know it was the result of the new medication. They put their blind faith in their doctors.

And what a price we have paid!

Doctors to this day seem to be mindless cattle in the chutes of their pharmaceutically-financed, medical school training, appearing to have no memory or knowledge of the success of desiccated thyroid. No less is the influence of the commission-paid pharmaceutical rep, who enters each and every office in his or her nicest suit, brightest teeth, and friendliest smile in order to sell each doctor on the latest drug or to hand him freebies.

And yet, if certain hypothyroid symptoms persist, what doctor doesn't pull out his handy-dandy prescription pad, or pull that sample off the shelf, in order to treat the subsequent undertreated hypothyroid symptoms, such as chronic low grade depression, rising cholesterol, anxiety, mental health issues, hair loss (alopecia)...and so many more symptoms of under treated, poorly treated hypothyroid. In other words, the body is not meant to live on the conversion of T4 to T3 alone.

The momentum of change by thyroid patients

Though it took nearly five decades of T4-only inadequacies for patients to get wise and dare to question their treatment, the step back to desiccated thyroid seemed to start around the turn of the millennium. Thyroid patient Mary Shomon started her Yahoo Thyroid group in 1999, and mention of Armour desiccated thyroid shows up soon after. The Yahoo Natural Thyroid Hormone Users group started in 2002 by the author of this book as a patient group more focused on desiccated natural thyroid and with more reactionary stance against poor treatment. Several other smaller but active patient thyroid groups popped up around the same time.

On a humorous note, the 2006 edition of *Goodman & Gilman's Pharmacological Basis of Therapeutics* erroneously yet seriously states:

> *Desiccated thyroid preparations, derived from whole animal glands, contain both thyroxine and triiodothyronine and have highly variable biologic activity, making these preparations less desirable.*

Highly variable biologic activity and less desirable? Patient experience begs to differ.

From this you come to realize that even the "bible of pharmacology" doesn't have it right. As stated above, FDA-approved, prescription desiccated thyroid is made according to the official standards and specifications for consistency of the United States Pharmacopeia (USP).

Additionally, not a patient on desiccated thyroid preparations would state that their results are less desirable, especially considering this treatment gives you the same hormones as your own thyroid would have been giving you when healthy. Patients soar on desiccated thyroid when they dose by the elimination of symptoms, first and foremost, in the presence of adequate cortisol, whether from healthy adrenals or supplementation. The proof is in their experience! So who are the doctors listening to: the words in a Pharmacological textbook....or patients?

The 21st century worldwide patient revolution makes it clear: T4-only treatment leaves patients with lingering symptoms, and a switch to desiccated thyroid is changing lives with renewed energy, health and the elimination of ever-present symptoms of an inferior treatment. Desiccated thyroid works!

CHAPTER 3

What Thyroid Patients Have Learned: The bible of our experience

No two minds ever come together without, thereby, creating a third, invisible, intangible force which may be likened to a third mind.

-Napoleon Hill

A few years ago, when a growing body of thyroid patients began to switch from T4-only medications like Synthroid or Levoxyl to desiccated thyroid like Armour and Naturethroid or other brands, they and their doctors also began to tread new ground. It has been a journey seeking a thyroid treatment bliss, but it hasn't been without ruts in the road. It's been a road less traveled.

And because the journey has been new, we as patients have had to learn by the seat of our pants. Granted, there have been a small handful of insightful doctors and medical professionals in literature that have helped us along the way–Peatfield, Derry, Jeffries, Brownfield, Lowe, Dommisse, Rind, Lam, to name a few. But overall, we're had to blaze new trails when the

vast majority of our personal doctors either weren't knowledgeable enough, open-minded enough, or cared enough about desiccated thyroid.

So, we are modern pioneers, inspired by the path of hypothyroid patients long before us who were treated successfully on desiccated thyroid. The following represents the hard-earned knowledge of patients who switched to desiccated thyroid and regained our health, well-being and bliss. We now give it to you. (The name brand Armour is only used to conveniently represent all brands of desiccated thyroid, which are all good products.)

1. Certain Lab Results Help Us: Other Labwork Does Not.

Laboratory work is said to make the physician more competent in his diagnosis and treatment of his patients. And patients welcome the extra information, since the results can find answers to mysterious symptoms.

Yet the most unfortunate and egregious mistake that doctors have been making for decades is to regard those ink spots on a piece of paper as being far more important than obvious symptoms. *Symptoms*, not man-made lab work, should be the throne of diagnosis and the principal guide in your diagnosis and dosing. For thyroid patients, lab test choices and results with their erroneous normal ranges have been the biggest culprit in keeping patients undiagnosed, as well as undertreated.

For years, the two lab tests that doctors have worshipped as if they came from God Almighty are the TSH (Thyroid Stimulating Hormone) and the total T4, which is also written just as T4. At the very worst, doctors moved to simply testing the TSH, which sadly to this day still occurs.

Or they have used the outdated and fairly useless thyroid panel, which tests the total T4, the TSH, occasionally the free T4 or total T3, and other lab results such as the Free Thyroxine Index (FTI) or the T3 Resin Uptake (T3RU) or T7. Of course, all the latter are good if you want the lab facility to make plenty of money and you want less money in your pocket.

We, as patients, have learned that there are certain lab tests, contrary to what most doctors' request, which can help us in our assessment of thyroid disease and in our treatment with thyroid medications. They include:

- TSH (a pituitary hormone used to ascertain if there is a pituitary problem, not to diagnose or dose by)
- *Free* T4
- *Free* T3
- Two thyroid antibodies tests:
  TPOab (Thyroid Peroxidase)
  and TgAb (Antithyroglobulin)

The *free* in front of the T4 and T3 represents what is available and unbound in your blood serum by proteins, i.e. what is usable. Without that *free*, the labs are only measuring the total of what's there, which tells you nothing about what is usable.

For diagnosis, patients have discovered that a free T3, either mid-point or below is a good confirmation of what symptoms are already telling you. The free T4 can also reveal our hypo when it's low in its respective range.

We have also learned to only use the TSH to ascertain poor pituitary function (which can be revealed by having a very low TSH in the presence of raging hypothyroid symptoms). Granted, you might be the rare patient who finally does have an above-range TSH to help diagnose your hypothyroid to a lab-obsessed doctor. But overall, a majority of patients go years before the TSH conforms to their symptoms.

Antibodies are blood proteins produced by your immune system in response to a problem. There are two antibodies and both need to be measured:

- Those targeting your thyroid peroxidase (an enzyme that is important in the production of your thyroid hormones)
- Those targeting your thyroglobulin (a protein carrier for your thyroid hormones).

It is not uncommon for doctors to state that these tests are useless, or for only one of the two to be performed. Yet, we have learned both to be valuable, since one can be normal and the other above range. Additionally, knowing you have an autoimmune attack going on means you can swing between hypo and hyper. That latter fact, in turn, can make it useless to dose by lab values! (See Chapter 9 on Hashimoto's Disease)

2. Additional Labwork Can Be Helpful.

Patients have learned that it can be wise to add a few other lab tests to your regimen to further benefit your quest for better health. These include but are not limited to:

- Ferritin (iron storage protein)
- B-12
- DHEA
- Estrogen
- Progesterone
- Testosterone
- Iodine Loading Test (urine test and can be ordered by the patient)

Hormonal imbalances can be common in hypothyroid patients, and can add to your problems. I, for example, fell into severe peri-menopause estrogen dominance not long after I had achieved my optimal dose of desiccated thyroid. And the symptoms were remarkably similar to being hypothyroid: easy fatigue, achiness, and depression. If I hadn't already had several months of optimal thyroid treatment, I might have made the false assumption that I was still experiencing undertreated hypothyroid symptoms.

Ferritin is an iron-storage protein, and when it's measured via a lab test, it's measuring the iron you have tucked away for future use. A large body of thyroid patients has been surprised to discover that being hypothyroid and having low Ferritin can go hand-in-hand.

Low ferritin can be a precursor to having raging anemia, and anemia can only add to your misery with additional fatigue, depression and hair loss. We have learned the importance of raising our Ferritin, with a goal of 70-90[1]. To raise a low ferritin, we take approximately 180-200 mg of elemental iron daily, taken with food. It's important to read the label of your particular iron product to discover the amount of elemental iron in each tablet. (See Chapter 13)

Since thyroid hormones are primarily composed of iodine, a Urine Iodine Loading test can be useful information to the thyroid patient. I strongly recommend an internet search for facilities where you can have the test sent to you or see Addendum D.

There is a recent trend to test Vitamin D, and it may be wise. It's proposed that low Vitamin D makes you more susceptible to cancers of the breast (and prostate cancer for men) as well as MS and Rheumatoid Arthritis. And since continued hypothyroid reduces your digestive and absorption ability, your Vitamin D levels may be too low.

And finally, ask your doctor what other tests he might recommend for your health.

3. Our Adrenal Health Plays An Important Part In Our Thyroid Health.

Remarkably, we have discovered that a large percentage of thyroid patients have sluggish, low functioning adrenals, also called adrenal fatigue. The end result is low cortisol production. Cortisol, also called hydrocortisone, is released by your adrenals to help you cope with stress, besides playing a role in facilitating the thyroid receptors on your cells in receiving the thyroid hormones from your blood.

The consequences of having an inadequate cortisol production are profound for thyroid patients. Not only do you lack the ability to appropriately cope with stress, you lose the success of raising your Armour to optimal levels. Thyroid hormones, especially T3, will build high in your blood rather than make it to your cells. You will also have hyper-like symptoms and misery as you try to raise desiccated thyroid. (See Chapter 5)

1. *www.goodhormonehealth.com/Iron%20Deficiency%20and%20Fatigueaug06.pdf*

Why do so many thyroid patients have an adrenal problem? We can surmise that years of being undiagnosed due to doctors over-reliance on faulty labs and cheesy normal ranges, followed by poor treatment with levothyroxine or other T4-only medications, have both played a role in the overworking of our stress-busting adrenals to make up for the slack. To the degree that your hypothyroid condition continues, to the same degree and ten-fold your adrenals try to make up the slack.

Additionally, we can surmise that chemicals in our water and food, including fluoride, have played a taxing role in the chronic stress on our adrenals. Add to that the emotional stress of our modern lives and you have a recipe for disaster for your adrenals. That heavy workload is followed by adrenal exhaustion.

Thus, at the beginning of our thyroid diagnosis or treatment, we have found it wise to learn the status of our adrenal cortisol production. Chapter Five gives you Discovery Steps One and Two to help you discern if you have adrenal problem. Discovery Step One asks you pertinent questions. Discovery Two explains certain tests you can do in the privacy of your own home. If either or both are suspicious, it can be time to consider a 24 hour adrenal saliva test, which unlike a one-time blood test commonly prescribed by doctors, will test your cortisol levels are four key times during a 24 hour period. It doesn't require a prescription, and it's less stressful since you do it in your own home. (See Addendum D for places to get your cortisol tested with saliva)

The ACTH STIM test is commonly prescribed by doctors if you suggest you may have an adrenal problem. ACTH is the hormone secreted by your pituitary with the purpose of motivating your adrenals. But most patients have found themselves with normal results, even when the saliva test revealed otherwise. Your ACTH may be normal, but your adrenals too sluggish to perform. (See Chapter 5.)

The 24 hour urine test can also prove to be inadequate, since it takes the average of a total day's production of cortisol, leaving you clueless as to what specifically is going on with your adrenals at specific times of the day.

If we find ourselves with low cortisol, it can be wise to start a treatment of physiologic doses of cortisol two weeks before we start on desiccated thyroid like Armour, or soon after you start. Chapter 6 covers this topic.

4. We Have Found Successful Ways To Transition From T4 to Desiccated Thyroid.

When making a switch to desiccated thyroid, we and certain wise doctors have found two successful strategies: first, to take our last dose of T4 (aka Synthroid, Levoxyl, Levothyroxine, etc.) one day, and start on a safe dose of desiccated thyroid like Armour the next, as explained below.

Or second, a patient can lower their T4 dose in half, and start on desiccated thyroid. But it will be important to continue lowering the T4 with each raise of desiccated thyroid to prevent an excess of T4. Desiccated thyroid like Armour is 80% T4 anyway!

5. There Are Safe Ways To Start On And To Raise Our Desiccated Thyroid.

Generally, we and informed doctors have found that a safe dose to start on is around one grain, which equates to 60 mg. Some may need to start lower due to heart issues, excessively low cortisol, or other conditions. Some can start a little higher, but one grain has been our experience as a safe introductory amount for most.

For me, starting on a safer lower dose was very important due to having a benign heart condition called Mitral Valve Prolapse (MVP). My mitral value always proves itself to be very sensitive to certain substances or changes. So it was important for me to start as low as one grain to allow my valve to adjust to the direct T3, which my body was starved for, and to raise in small amounts every week or two. I had heart palpitations when I started Armour and with every raise, but they always subsided within a few days. This adjustment to the direct T3 can be important for your entire body, even if you don't have MVP.

Once patients start on one grain, we and some of our best doctors have learned to hold that amount one to two weeks, then start raising by approximately one half grain every few weeks. If we fail to raise our introductory dose within a few weeks, our hypothyroid symptoms start to return with a vengeance due to the negative feedback loop between the hypothalamus, pituitary and thyroid gland.

When we get close or up to three grains, we have found it wise to hold our doses at least 4-6 weeks to allow the T4 in Armour to build (which takes time, as compared to the direct T3, which is fairly immediate) and show its T4-to-T3 conversion results. It appears that most of us end up needing 3-5 grains, which may be closely equivalent to the amount that a healthy thyroid might be making[1].

Occasionally, some doctors find their patients needing even 6 grains or more when an optimal dose is found, as mentioned below. And of course, it's individual, since we occasionally see some patients lower, and a few even higher.

6. To Find Our Optimal Dose Of Armour, We Seek Three Criteria In No Particular Order.

- A mid-afternoon consistent temperature of 98.6, using a mercury thermometer
- The complete or near-complete elimination of our hypothyroid symptoms, and
- A free T3 towards the top of the range, no matter how low the TSH will plunge. *Note: having a free T3 at the top of the range, if not over, in the presence of continuing hypo symptoms, is a clue you have adrenal fatigue which needs treatment. See Chapter 5.*

Dosing by the elimination of symptoms was done successfully for decades before the TSH came into existence before the 1970's, and we are repeating that success. The free T3 being in the upper part of the range is simply another guide, making sure we do not take Armour before our labs, which only results in a false high reading.

1. *www.thyroidmanager.org/Chapter2/2-frame.htm*

7. We Have Learned That Symptoms Diminish With Each Raise Of Our Desiccated Natural Thyroid.

It's very individual, but some of the first improvements we see as we raise our natural thyroid include the softening of our hair and skin, improvement in our brain fog, and better energy. As we continue, our depression lifts, and aches and pains cease, and our cholesterol falls. It removes the fatigue that was once classified as the mysterious Chronic Fatigue Syndrome (in lieu of having Lyme's Disease, acute EBV, etc.). It gives back the stamina that we never had. We see an improvement in our bone density and strengthening of our heart muscle.

Raising our desiccated thyroid improves or removes our chronic headaches and improves our female hormonal issues. It helps us get pregnant when that goal is desired. It stops our hair loss and slowly allows new growth to come back in. It gives up back our sanity.

Note that all the above occurs in the presence of healthy adrenals, or optimal adrenal treatment if needed.

8. Problems That Arise When On Desiccated Thyroid Are Correctable.

For those of us who have had problems with Armour, it was due to four correctable issues, in most cases:

- ***Being held on low introductory doses far too long, allowing our hypo to return with a vengeance.*** We and wise doctors have learned NOT to stay on an introductory dose much longer than two weeks or less before raising. This can be challenging if you have a doctor who expects you to wait 6 weeks and more until your next appointment.

- ***Being held hostage to the unreliable TSH lab value.*** Since the TSH and its dubious "normal" range can fail us, we dose by symptom-elimination first and foremost, and allow the free T3 to be used as an adjunct to what our symptoms already tell us.

- ***Failing to recognize low-functioning sluggish adrenals and low cortisol.*** Cortisol is needed to distribute thyroid hormones to the cells, and without healthy adrenals making enough cortisol, problems develop that resemble hyper symptoms, such as anxiety, shakiness, sleep issues, feeling hot, etc. as we are raising our Armour. Sluggish adrenals also result in a high free T3 lab result with continuing hypo symptoms. We then supplement with physiologic, low-dose cortisol like over-the-counter Isocort or prescription Cortef (Hydrocortisone or HC). Once we have found our optimal dose of cortisol, we can then continue with raising our Armour while on adrenal support.

- ***Having low Ferritin, which is storage iron.*** Low ferritin appears to be quite common in thyroid patients and can cause problems as we try to raise our Armour, as well as mimicking low thyroid symptoms if we slide into anemia. We then supplement with up to 200 mg. elemental iron daily, taken with food. Improving low ferritin can take months. If we are using Ferrous Sulfate, we add Vitamin E, since evidence states that the Sulfate brand of iron may deplete our E levels. We attempt to raise our Ferritin to 70-90 at the minimum, which takes time. (See Chapter 13.)

9. Armour Seems To Work Best When We Multi-dose It. We Also Find Benefit In Taking It Sublingually.

Since healthy thyroids produce hormones as needed throughout the day, we emulate that by multi-dosing our desiccated thyroid rather than taking it in one big dose in the morning. We all experiment to find what works best for us, and generally, that means taking the highest amount in the morning, followed by a lower amount in the early afternoon. Or, we can take three doses–morning, early afternoon, late afternoon, etc. Some even take a final small dose at bedtime.

Since the direct T3 in Armour peaks about 2 hours after you take it, multi-dosing prevents a huge spike, which can be quite strenuous on your adrenals.

Additionally, many of us do our Armour sublingually (under the tongue) which has real biological benefits that swallowing does not. First, it's direct and immediate, absorbed into your bloodstream via the millions of tiny capillaries that line your mouth. Additionally, sublingual bypasses the acidic, destroying gastric action in your stomach where you can lose some of the thyroid ingredients, as well as bypassing the metabolizing action of the liver. In other words, you get more of what you give yourself by doing the Armour sublingually rather than swallowing.

This does not mean you can't swallow your Armour or other brands and get benefits. Some patients prefer swallowing, and you will still get benefits! But if you do swallow, make sure to avoid swallowing calcium, iron and estrogen at the same time, since all will bind some of the thyroid hormones as they mix in your stomach. On a positive side, swallowing Armour with food slows the release of the thyroid hormones to your body, distributing the direct T3 more evenly throughout the day.

Unlike thyroxine, you do not have to swallow desiccated thyroid on an empty stomach.

10. We Have Learned Not To take Our Armour Before We Give Blood For Labwork.

This directive is important enough that you may need to tie a little string around your finger to remind yourself. Namely, the direct T3 found in desiccated thyroid peaks approximately two hours after we swallow or take it sublingually, causing our free T3 lab result to look high and give a false impression of hyper to doctors who are obsessed with lab work. Thus, we have found it wise to avoid taking any desiccated thyroid before we do our scheduled labs. In other words, we take our final dose the day before, and refrain from doing our morning dose until we can get our labs done in the late morning or early afternoon. This refrain from taking desiccated thyroid can also be true for saliva tests, where you should only swallow it after the noon spit and the afternoon spit.

11. Wintertime Or High Activity Can Heighten Our Need For A Bit More Desiccated Thyroid.

If we are frequently exposed to cold air during the winter, we have learned that it can be wise to add a slight amount of Armour, such as 1/8 or 1/4 grain, to our daily optimal dose. This slight dose raise can also be true if we participate in a strenuous activity in any season of the year, since the activity can increase the need for the direct T3. If we are on needed adrenal support, a strenuous activity or high stress life situation can dictate the need for a bit extra cortisol, as well.

12. Good Doctors Can Be Hard To Come By, But We Look For Certain Attributes.

Generally, we as thyroid patients have experienced that a large body of our doctors have been unwilling to help us achieve optimal thyroid treatment. We have experienced many to be excessively rigid about prescribing T4-only medications, ignorant about desiccated thyroid, close minded to our own knowledge about our bodies, and too obsessed with lab work rather than listening to the clinical presentation of our symptoms.

Additionally, we have repeatedly found endocrinologists to be the least open-minded, besides rigid about the TSH and thyroxine medications. There are exceptions, but few.

We have learned to find a doctor who is friendly about the use of desiccated thyroid and who helps us dose according the elimination of symptoms, as was done successfully for decades before labs came into existence, rather than simply lab results. We also value doctors who work with us as a team, respecting our own knowledge since we live in our bodies, along with the doctor's knowledge and experience. (See Addendum E on how to find a Good Doctor.)

13. Iodine Can Be A Beneficial Supplement To Support Your Thyroid

Some thyroid patients report that the use of iodine has either helped them lower their thyroid medications, or has improved their adrenal function. Since thyroid hormones are primarily composed of iodine, the use of iodine as a supplement

can make sense. We have found it helpful to do an iodine loading test to ascertain our levels of iodine, which can be frequently low. See the iodine section in Chapter 13.

Many patients use Lugols, a liquid form, either topically or with drops into juice or water, or Iodoral, a pill form. Moving up to 50 mg has been the recommended dose. The use of iodine also helps eliminate toxins from your body, especially bromide, causing detox symptoms such as a pimple or headache. The toxin release eventually wanes.

Some Hashimoto's autoimmune patients find the use of iodine to exacerbate the antibodies attack, which is a concern. It is proposed that the patient needs more iodine, not less. I would highly recommend that you do research on the use of iodine with your antibodies attack before using it.

14. We Have Learned To Be Our Own Best Advocates.

In previous generations, and including our own, it's been common to look at the doctor as an extension of God Almighty: my doctor knows what's best; my doctor will tell me what to do; my doctor can figure out what is going on; my doctor knows more than I know; my doctor will do the right thing to make me well. Most all of us have spent years entering our doctor's offices and giving our power away.

But thyroid patients have learned to walk into that office knowledgeable (which this book will help you do), and to expect the relationship to be a team–the doctor's medical school training and experience, and your own intelligence and intuitive knowledge since you live in your body, not the doctor. This has become especially crucial for thyroid patients in light of local doctors who might know little about desiccated thyroid, sluggish adrenals, or dosing by symptoms

CHAPTER 4

TSH: Thyroid Stimulating Hooey

(aka, why you may still be hypothyroid with a normal TSH lab result)

It's probably one of the most commonly prescribed lab tests worldwide–the Thyroid Stimulating Hormone, aka TSH test.

In fact, talk to your endocrinologist or most any medical-school-trained doctor, and you will be told the TSH lab test is a reliable gage of your thyroid function, i.e. whether you are hypo, hyper, or normal. The same doctors would also state that the TSH lab is an accurate guide to determine the right dose of thyroid medications. Even the most prestigious medical websites and journals will state the same, one way or the other. And it's a pronouncement which has been going on for years.

But, experiences of patients have found both of the above TSH pronouncements (reliable physiologic marker and accurate dosing guide) to be totally and unequivocally false!

In fact, it's not uncommon to see the majority of thyroid patients, who have obvious and classic hypothyroid symptoms, report that a doctor pronounced them "normal" for years because of a TSH lab result which fell between the two man-made parameters of the so-called "normal" range, which might be 0.5 - 5.0, or more recently 0.3 - 3.0.

The end result: the doctor's overt reliance on the TSH test and its dubious range ends up browbeating us into believing that we must be crazy, hypochondriac, or at the very least, just plain ol' mistaken. Cough.

Finally, after years go by...voila! The ink mark on the piece of paper confirms what our symptoms told us for years anyway. But patients question: where is the victory in the diagnosis when they had to suffer for so long?

Joan noticed she needed afternoon naps after her normal pre-lunch bike rides, whereas before, her energy levels were high enough to ride again in the afternoon. Concerned, she made an appointment with her family doctor, who first sent her to do the TSH lab work.

> *When I sat down in his office and went over my fatigue, he outright dismissed it, telling me I simply may be pregnant. Pregnant!! I was single and had not had a relationship with anyone for months! When I asked about my lab results, he just looked at me and said everything was quite normal. Wait a minute. It was normal to need naps that I hadn't needed before? I was confused, but he was the expert. And it took me four more years of a "normal" TSH lab tests and losing my ability to ride my bike without consequences before he diagnosed me as "borderline" hypothyroid.*

Joan's story of being undiagnosed for years due to the TSH lab is so common that it reeks of scandal. In fact, I have observed many a patient who clearly had symptoms of hypothyroid for years before their TSH lab result even came close to cluing in their symptom-blind doctors.

What is the TSH?

In your body, the Thyroid Stimulating Hormone (TSH) is synthesized and secreted by your pituitary gland...i.e. it's a pituitary hormone, not a thyroid hormone. Its part of a negative feedback loop called the thyroid-pituitary-hypothalamic axis, and it works like this:

- The hypothalamus (a tiny sensitive gland in your brain)
- Produces TRH (aka Thyrotropin Releasing Hormone)
- In order to stimulate your Pituitary gland (a neighboring small gland to the hypothalamus)
- To release the regulatory TSH (aka Thyroid Stimulating Hormone)
- Which in turn stimulates your thyroid (in your neck)
- To produce more T4 and T3 (or not produce by not stimulating)
- And gives feedback to the hypothalamus once again.

As shown above, you can view the actual TSH hormone like a messenger sent to knock on the door of your thyroid. If activity or illness increases your body's demands for assistance from your thyroid, the messenger will knock on the door a bit harder. If you've got an excess of thyroid hormones when you don't need them, the messenger will knock much lighter.

But when your thyroid gland becomes diseased or disabled and fails to do its job adequately (called hypothyroid), the TSH knocks and knocks on the door, and theoretically, the TSH lab will show a consistently high number. Or, if the thyroid gland gets on its exercise bicycle and overproduces thyroid hormones (called hyperthyroid), the TSH lab will theoretically go low to show that the TSH in your body isn't knocking.

Yet patients have found the TSH lab to be a poor reflection of the reality of their thyroid condition, most especially for hypothyroid! Additionally, when a thyroid patient has the autoimmune thyroid disease called Hashimoto's, the TSH, just like the free T3 and free T4, can move all over the place in response to the die-off of the attacked thyroid hormones. And you're out of luck if you have your blood drawn during one of the low-normal swings of your TSH.

The creation of the TSH lab

The TSH lab test was developed around 1973, using a base of select volunteers with no presumed history of thyroid disease to establish the "normal" range. Over the years, additional

population studies have been done to back up the range. The "normal" reference range is intended to represent the range of values for those in a healthy population without any presumed thyroid problem. The lowest and highest readings used to create the range are usually thrown out.

Dr. David Derry, a renowned physician in Canada, had been practicing medicine just two years when the TSH lab was introduced. In an interview with thyroid patient Mary Shomon, he stated he was able to watch whether the TSH was in line with the onset of hypothyroidism. And he came to the conclusion that it was either quite slow to reveal it, or didn't at all[1]. Dr.Derry discovered exactly what we, as patients, have experienced for five decades–the TSH lab result is thoroughly unrelated to how we feel!

Does the TSH lab have a role when we are on thyroid medications? From the experience of patients, the answer is a resounding NO!

Sure, the vast majority of us have been dosed according to the TSH lab result. Our doctors have told us for years that because our result was in a particular place in the reference range, we were now on a correct amount of thyroid medications and adequately treated.

But patients who have switched to desiccated thyroid like Armour have discovered that when they are allowed to dose by the complete elimination of symptoms rather than lab work, they will end up with a TSH value very below range...and not one hint of hyperthyroid. It is not uncommon to see a TSH of 0.009 or 0.004 when optimal, for example, yet not one iota of hyper, and no underlying problems with our hearts or of osteoporosis–the latter which uninformed doctors will declare.

Here is an example of lab work by an individual who had what appeared to be a very normal and optimal TSH. Yet, the patient made it clear that she continued to have hypothyroid symptoms of poor stamina, afternoon fatigue, hair loss and constipation. Additionally, when you view the free T3 and free T4, you will see the dead giveaway of the continuing hypothyroid condition, as both numbers are at the low end of each range:

1. *www.thyroid-info.com/articles/david-derry.htm*

- FREE T3 2.65 (2.00 - 4.20 pg/mL)
- FREE T4 0.89 (0.71 - 1.85 ug/dL)
- TSH 1.58 (0.35 - 4.00 uIU/mL)

The answer as to why the TSH lab can be so counter to how we feel lies in our tissues. Each of our organs will independently manage the amount of thyroid hormones which get into its tissues via the conversion of T4 to T3 by enzymes, especially the liver and the brain. In other words, though one organ achieves optimal T3 from conversion, another organ will not. And the organ that is not getting enough T3 has no way to tell the thyroid that it needs more.

A report in 2005 from the Athens University School of Medicine [1], stated it this way:

> *Conversion of T4 to T3 is greater in the pituitary than in the liver, therefore it is possible that euthyroidism [without hypothyroid symptoms] in pituitary cells may co-exist with hypothyroidism in liver cells.*

And that discrepancy in your organs can explain why you may have some improvement in aches and pains when your TSH is normal, yet chronic low grade depression...and a potpourri of other continuing hypo symptoms.

When Dr. John Lowe wrote his classic *Addenda to Four 2003 Studies of Thyroid Hormone Replacement Therapies,* he stated tissue responsiveness to thyroid hormone dosages can vary widely amount patients[2].

Where the TSH lab can be useful

In spite of the worldwide patient experience with the TSH as a lousy test for hypothyroid diagnosing and dosing, there is one area where it can be quite useful: to discern pituitary function. Occasionally, a patient will have a very low TSH lab result with raging or classic hypothyroid symptoms, and that can point to a problem in the Pituitary gland, which normally secretes the TSH hormone. This failure is called Hypopituitary.

1. *www.springerlink.com/content/y28n557300582h33/*
2. *www.drlowe.com/frf/t4replacement/addenda.htm*

Hypopituitarism is a condition in which your pituitary gland fails to produce enough or any of its important messenger hormones. This causes a domino-like downward effect in the health of your body.

Pituitary hormones include the TSH (which stimulates your thyroid to produce); the ACTH (which stimulates your adrenals to produce cortisol and effects your blood pressure); the FSH and LH (which influence the testes and ovaries in the production of testosterone and estrogen); the GH growth hormone (which promotes normal growth of your bones and tissue); the ADH antidiuretic hormone (which helps controls the water loss by your kidneys); and the Prolactin hormone, which stimulates milk production and female breast growth.

The condition has many causes, including an injury to the head, excessive blood loss (especially from childbirth or an injury), a disease in the gland itself, meningitis, or a problem with the Hypothalamus, which is the organ that sends its hormone messenger to the Pituitary. I frequently see hypothyroid patients with a previous head injury develop hypopituitary.

Treatment involves replacing hormones from those glands the pituitary fails to stimulate, or treating the underlying cause of the sluggish pituitary state.

Smoking and your TSH

From a study done in Norway in 2006[1], there is evidence that smoking can lower your TSH lab result. So if your doctor is still attached to the TSH lab, and you know you have hypothyroid symptoms, it may be wise to avoid smoking the day of your lab work.

Observing first-hand the idiocy of the TSH

As a thyroid patient advocate, I read numerous and exasperating reports by patients about having a "normal" TSH lab result accompanied by raging hypothyroid symptoms. And recently, I got to observe the schizophrenic problem first-hand.

1. *www.thieme-connect.com/ejournals*

My niece has been miserable for more than ten years with unmistakable hypothyroid symptoms: continual weight gain, depression that needed a pill, rising cholesterol and fatigue. Yet all tests had implied she is "normal".

On this particular day, while I sat in the background and she put her doctor on the speaker, I listened with interest. Her TSH was 2.65, and her unenlightened doctor proceeded to stumble all over himself by explaining that her thyroid function was fine since 2.65 was within the normal range, and perhaps her problems would be solved by losing the extra weight.

The bottom line about the TSH lab according to the experience of patients

For the thyroid patient report card, it sucks. The TSH lab can be affected by too many variables, including an autoimmune attack on your thyroid (causing you to swing between hypo and hyper), your daily hormonal ebb and flow, the weather, numerous medical conditions, or can just plan lag behind what is really going on with you for years. And, there are simply a large percentage of hypothyroid patients who have continuing hypothyroid symptoms with a TSH lab result in the "so-called" range.

Our recommendations to our doctors? Pay attention to our symptoms first and foremost. Then use the free T3 and free T4, plus the two antibodies tests, as adjuncts to our clinical presentation of our hypothyroid! See Addendum C for explanations of thyroid labs and test.

The grandest use for the TSH lab test pertains to what it is: a pituitary hormone...no more, no less. And for that, the TSH lab is a good guide to reveal if you have a malfunctioning pituitary gland, especially if you have a very low TSH accompanied by raging hypothyroid symptoms.

For the prompt diagnosis of a thyroid condition, as well as for finding the optimal amount of thyroid medications, patients give a resounding "Useless!" to the TSH lab.

CHAPTER 5

Don't Ignore Your Adrenal Glands:
The Monkey Wrench in the Works

Just when you think you've gotten ahead of the game with your new knowledge about better thyroid treatment, a new stumbling block can rear its ugly head for many thyroid patients: *adrenal fatigue*. In fact, it's been my observation that more than 50% of hypothyroid patients may have an adrenal problem.

Healthy adrenals and how they can turn on you

When your adrenal glands are healthy and strong, they have a powerful biological role of helping you cope with stress, whether physical, emotional, or mental. It's a process you may not even realize is going on, so you take it for granted. But they are like an invisible knight-protector who's ready to absorb or squelch any stressful blows from life's dragons.

In response to stress, your adrenals produce two key hormones to help you cope: *adrenaline*, which plays a role in your short-term reaction to stress, and *cortisol*, which has a longer action and a variety of stress-busting roles. Your adrenals also produce *aldosterone*, which helps maintain your

internal fluid balance and your blood pressure, and the sex hormones testosterone and estrogen as well as DHEA and others.

And key for thyroid patients, it's the adrenal hormone cortisol which helps enable thyroid hormones to pass from your blood into your cells. Below are three common scenarios, one or more of which may have resulted in your adrenals falling off their horse and becoming fatigued, sluggish, and unable to give you enough cortisol:

1. Being on a T4-only treatment like Synthroid, Levoxyl or other brands (which leaves you hypothyroid and causes your adrenals to take up the slack)

2. Spending years being undiagnosed as hypothyroid due to your doctor's rigid dependence on the unreliable TSH lab with its dubious normal range (which leaves you hypothyroid and causes your adrenals to take up the slack)

3. Enduring long periods of chronic stress-biological, emotional, or physical (which causes your adrenals to overwork, and can be an additional burden if you also have the above two scenarios)

The tell-tale signs of adrenal fatigue

One of the first clues that your adrenals are overly challenged and becoming fatigued can be a cluster of symptoms you've noticed before you even got on desiccated thyroid medication, or when you are trying to raise your desiccated thyroid:

- Anxiety
- Nervousness
- Not coping well with stress
- Impatience or irritability with others
- Feeling light headed
- Shaky or trembling
- Dizziness

- Racing or pounding heart
- Trouble sleeping at night
- Nausea in the face of stress
- Hypoglycemia
- Sweating
- Salt craving

Some patients with adrenal fatigue may start on desiccated thyroid without an issue, but notice something is not quite right when they get up to two to three grains. Namely, you might notice symptoms that seem like an overreaction to your medication. I'll never forget Julie, an author of children's books, who had a bad reaction when she reached 90 mg. She recounted:

> *I sure was excited when I found out about Armour. My eleven year use of Levoxyl had done practically nothing for me. Yeah it was a little better than before I started, but I still had problems. And my continued symptoms were affecting my ability to write, which of course my doctor said was because of depression. I also became a recluse, which really bothered my husband and son. And my friends weren't too pleased with that, either. When I first started on Armour, I had such hope! I did feel better. But on the day I was ready to raise to 1 ½ grains (90 mg), I became breathless and my heart felt like it was going to beat out of my chest. I also had this strange tight feeling in my chest. And my anxiety was huge! I felt like I was going to crawl out of my skin.*

Julie's story is common to many patients who start on desiccated thyroid without putting the pieces together beforehand about their adrenal situation. Strange reactions occur, causing the thyroid patient to think they are allergic to desiccated thyroid, or sensitive, or that it's not for them. Some experience it on lower doses; some on higher doses.

Another common scenario with adrenal fatigue while on desiccated thyroid is finding your free T3 is high or over the range, yet you continue to have hypo symptoms. So your well-meaning doctor states you have to lower your thyroid medication. Yet he fails to put the puzzle pieces together.

Patients putting it all together

As a result of problems mentioned above, or the continuing hypothyroid symptoms with a free T3 lab result at the top of the range, we've heard patients like Julie exclaim "Armour doesn't work for me!" Doctors then claim patients like Julie "prove" that Armour is a substandard treatment.

> *But it didn't add up. How could a product which simply gives us back what our own thyroids would be giving us...not work?*

So patients started to read websites and study books, besides conversing with other patients. And it became clear that something was going on with the adrenals. We recognized we were dealing with a form of adrenal fatigue, a.k.a. sluggish adrenals with their low production of cortisol. Since adequate levels of cortisol are important in helping the cell receptors receive thyroid hormones from the blood to the cells, patients on Armour were finding themselves with a free T3 at high levels in their blood as shown via a blood serum test or revealed by their overreactive symptoms. The active thyroid hormone T3 wasn't adequately making it to the cells, causing the frustrating problems mentioned above.

Thierry Hertoghe, in *The International Hormone Society's Consensus Group statement*[1] states:

> *The intolerance may come from over activity of the orthosympathic nervous system that often accompanies states of low cortisol, and an excessive and rapid conversion of thyroxin to triiodothyronine that puts these patients easily into a state of excess T3 and thus hyperthyroidism, and further increases the orthosympathic activity.*

1. *www.fsaam.com*

We could sum it up in two sentences: adequate levels of cortisol are crucial when you start on, or are raising desiccated thyroid like Armour. And without those healthy levels of cortisol, problems will ensue!

Why doctors haven't pointed out our adrenal fatigue

When you look at the medical school training of the majority of doctors, you'll find out that the books accentuate Addison's disease or Cushing's syndrome–the extreme low and the overtly high of dysfunctional cortisol output. Addison's, named after the English physician who first identified the disease in an 1855 publication, is a progressive destruction of the glands and is most commonly caused by an autoimmune attack. Technically, you will see the term *adrenal insufficiency* used to describe the effects of Addison's disease.

On the other side of the coin, our adrenal problem is more aptly described as *adrenal fatigue*, since it's more of a sluggishness than a disease process. And our different, yet still highly problematic variety of an adrenal problem has been missed by our doctors. In fact, it's most likely far more common and widespread.

Additionally, with our doctors blind and zombie faith in T4-only medications and the TSH lab test, and their failure to give credence to our years and years of coping with continued hypothyroid symptoms, it has probably not even dawned on them what has been occurring. It's the blind leading the blind.

If we do get a miracle and our doctors do prescribe Armour, they even seem to miss what is written in the prescribing information for Armour by Forest Laboratories:

> *Thyroid hormone preparations are generally contraindicated in patients with diagnosed but as yet uncorrected adrenal cortical insufficiency...*

James L. Wilson, N.D., in his book *Adrenal Fatigue, The 21st Century Stress Syndrome*, further adds that in addition to their lack of training,

> *Medical doctors of today are constricted by medical licensing boards, the health insurance and pharmaceutical industries, and their patient's expectations of quick recovery*[1].

When a doctor does recognize the adrenal factor, they might call the adrenal fatigue experienced by hypothyroid patients as a "mild deficiency" since it's not as grave as Addison's disease with its autoimmune devastation of your adrenal cortex. The adrenal problem experienced by hypothyroid patients, on the other hand, is simply the inability to produce enough cortisol. And the lack of adequate levels of cortisol as a result of adrenal fatigue causes innumerable problems that no patient would call "mild".

Other factors contributing to our adrenal fatigue

As thyroid patients, we have also surmised that the excessive amounts of added fluoride and chlorine in the public supply of water may have contributed. Fluoride, as a man-made chemical added to our water, is a known thyroid depressor, even used decades ago to treat hyperthyroid. You can also find it in our toothpastes, processed foods and beverages, including juice and sodas. Chlorine is also a known inhibitor of the iodine receptors of thyroid hormones.

Additionally, who knows what affect the mercury in our vaccines and fillings, bromine in pesticides and bread, and pollutants like PCB's and pharmaceutical residues that have leeched into our water supply have played in the stress on our adrenals.

Periods of chronic life demands have only further stressed our adrenals as they attempt to help us cope. These stressors increase our nutritional needs, and those needs may not be met by our propensity to eat excessive carbohydrates.

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Bottom line, a large body of thyroid patients find themselves with low-functioning adrenal glands, with the resultant low cortisol, complicating their hypothyroid condition.

Two kinds of adrenal fatigue: Primary and Secondary

Continued hypothyroid because of T4-only treatment and the use of the lousy TSH lab test, chemicals, mercury fillings, nutritional inadequacies and chronic stress all contribute to what is called *Primary Adrenal Fatigue*, or the inadequate secretion of cortisol by your adrenals, in spite of normal or high levels of ACTH (Adrenocorticotropic hormone) knocking on its door from the pituitary. (Primary Adrenal *Insufficiency* is the term applied to Addison's, usually from an autoimmune attack or even tuberculosis.)

Secondary adrenal fatigue/insufficiency is the result of a failure of the pituitary gland to send the ACTH messenger, also called *Hypopituitary*. It has a variety of causes, from a head injury, excessive blood loss, a tumor on the pituitary gland, and a viral implication...to having antibodies against it. It's usually detected when you have low cortisol or thyroid levels, and a low serum ACTH. It can have no cure, and require supplementation of the missing hormones for life.

Adrenal symptoms experienced by patients

The following is a list of actual low-cortisol symptoms reported by patients who had confirmed adrenal fatigue, whether primary or secondary:

continuing hypo symptoms with a high free T3	clumsy (drop things, bump into things)
shaky hands; internal feeling of shakiness	confusion
diarrhea	suddenly feel extremely hungry
heart palpitations	low back pain
feeling of doom or panic	feeling dull
general or localized weakness	cloud-filled head (happens when this patient is due for a next cortisol dose)
inability to handle stress	jumpiness or exaggerated startle reflex
inability to handle interactions with others	muscle weakness
inability to focus	"air hunger"
rage or sudden angry outbursts	dizziness
emotionally hyper sensitive	light headedness
overreacting	motion sickness
highly defensive	coffee putting patient to sleep
feeling paranoid	coffee needed in the morning to wake up fully
exacerbated reactions to daily stress	vomiting from running up the slightest incline
no patience	feeling nauseous from movement
easily irritated	almost passing out every time patient gets up
mild to severe hypoglycemic episodes	dark circles under eyes
taking days to recover from even minor stress	waking up in the middle of the night for several hours
taking days to recover from a dental visit	frequent urination
flu-like symptoms	IBS symptoms
headache	worsening allergies
all over body ache	feeling better after 6 pm
inflammation that doesn't go away	pain in the adrenal area
super-sensitive skin	
extreme fatigue	
scalp ache	
jittery or hyper feeling	

And some of the above symptoms, especially the shaky sensation, can be the result of the over-production of adrenaline by your adrenals in the presence of low cortisol. High testosterone levels can additionally occur in the presence of low cortisol.

Patients have learned that it can be quite important to rule out sluggish adrenal function before starting on desiccated thyroid like Armour, or soon after we have started and notice any of the above symptoms. In fact, we find it important to rule out poor adrenal function even if we haven't experienced any symptoms...yet.

When you mention the adrenal angle to your doctor

If you mention to your doctor that you seem to have symptoms of adrenal fatigue, you will frequently be prescribed one of the following tests:

1. ACTH Stimulation Test, also called the STIM test: This measures your adrenal's reaction to being stimulated by the ACTH (Adrenocorticotropic) hormone. The ACTH hormone is released by your pituitary to tell your adrenals to release certain hormones, just as the TSH is released by your pituitary to tell your thyroid to release hormones. The STIM is an excellent test to detect a problem with the ACTH, which in turn could diagnose Hypopituitary.

But there are two problems with the STIM if you suffer from the typical primary form of adrenal fatigue by hypothyroid patients: first, the test uses a bell curve to spot abnormal cortisol levels, and it only considers abnormal function to occur in the upper and lower 2% of the curve, where you would spot Addison's disease or Cushing's syndrome. Second, the ACTH STIM measures the adrenals ability to be "stimulated", not their ability to produce enough cortisol. So your adrenal fatigue can occur without being in these far ends of the curve, meaning your ACTH will look normal, and the doctor typically proclaims that you have no adrenal problem.

2. Blood Serum Cortisol Test: The one-time blood test can give you an accurate measure of the time of day your blood is drawn. Around 8 am, you are looking for a result near the very top of the range. Around 11 am to noon, you are looking for a result in the upper fourth of the range, even close to your morning result. Around 4 - 5 pm, you are looking for a result in the middle of the range or just slightly less. Just being "in range" is not what you are looking for.

But the problem with a one-time test is that you can be producing the right amount of cortisol at one time of the day, and not at another. That's common in adrenal fatigue. So if your result is where it should be, your doctor can pronounce your adrenals healthy, when they might not be.

3. 24 Hour Urine Collection Test: This test involving pouring samples of your urine in a 24 hour period into a collection container. Generally, you will urinate into your toilet first thing in the morning as normal. But afterwards, you'll be collecting all your urine in a special container for the next 24 hours.

The results then become an average of that day period, and fail to tell you when you might be high and when you might be low, both which can be common with adrenal fatigue.

4. An Overnight Metyrapone Test: This is a test that enables your doctor to see if you have an insufficient production of cortisol or a low reserve. You will take the medication either in several doses during the day followed by a urine sample, or before bedtime with a snack to prevent nausea, then will be tested the next morning. This is actually testing your pituitary glands ability to produce enough ACTH when your cortisol levels are low, so it may not work for the kind of adrenal fatigue most thyroid patients tend to have.

The best way to know if you have adrenal fatigue

At the beginning, we have found it wise to try a few self-tests that you can do in the comfort of your own home. The first is a set of questions to ask yourself, which I call Discovery Step One, and the second are tests you can perform in your own home, called Discovery Step Two.

DISCOVERY STEP ONE: If you answer yes to any of these, especially two or more, you may have adrenal fatigue:

1. Do you have a hard time falling asleep at night?
2. Do you wake up frequently during the night?
3. Do you have a hard time waking up in the morning early, or feeling refreshed?

4. Do bright lights bother you more than they should?
5. Do you startle easily due to noise?
6. Do you take things too seriously, and are easily defensive?
7. Do you feel you don't cope well emotionally with certain people or events in your life?
8. Does it seem to take a long time for you to get over something stressful?
9. Do you feel shaky, sweaty or nauseous when you need to eat?
10. Do you feel nauseous in the face of a stressful situation?
11. Do you crave salt more than what seems normal?
12. Do you feel much better after 6 pm?

It's true that answering yes to some of the above can be due to other causes. Menopause, for example, can cause frequent nighttime wake ups. But when you start answering yes to more than two, you can suspect an adrenal problem.

DISCOVERY STEP TWO: With this step, you have three tests to choose from: a pupil, temperature and/or blood pressure test. If you only choose one, the temperature test gives excellent information. Doing all three gives more information. We are indebted to Dr. James Wilson, author of *Adrenal Fatigue: The 21st Century Stress Syndrome*, for inspiring us with the pupil test and blood pressure test in his highly recommended book, and to Dr. Bruce Rind of *www.drrind.com* for the temperature test.

- **PUPIL TEST:** Stand in a darkened room in front of a mirror. From the side (not the front), shine a bright light like a flashlight or penlight towards your pupils and hold it for about a minute. Carefully observe your pupil. With adrenal fatigue (and particularly with low aldosterone, another adrenal hormone), your pupil will get small, but it will flutter and soon enlarge again or obviously flutter back and forth in its attempt to stay constricted. With healthy adrenals, your pupil should be able to constrict and stay small for at least a minute, even with very

minor fluctuations. Some patients with known adrenal fatigue can pass this test, since their aldosterone levels haven't been affected yet.

- **TEMPERATURE TEST:** You can determine your thyroid and adrenal status by taking your temperature. You simply take your temperature three times a day, starting three hours after you wake up, and every three hours after that, to equal three temps. (If you have eaten or exercised right before it's time to take your temperature, wait 20 more minutes.) Then average them for that day. Do this for at least five or six days. If your averaged temperatures are fluctuating from day to day more than 0.2 - 0.3 °F (approximately 0.1 Celsius), you need adrenal support. Dr. Rind's website[1] has a graph you can download.

Here are the averaged daily results of a patient who had confirmed adrenal fatigue (plus poorly treated hypothyroid):

Tuesday:	98.0 °F
Wednesday:	98.3 °F
Thursday:	97.9 °F
Friday:	98.4 °F
Saturday:	98.0 °F
Sunday:	97.9 °F

As you can see from the above spread, there is a difference of 0.5 °F from her lowest of 97.9 °F to her highest of 98.4 °F, implicating adrenal fatigue.

On his website, which we highly recommend, Dr. Rind explains more: If it is fluctuating but overall low, you need more adrenal support and thyroid. If it is fluctuating but averaging 98.6 °F, you just need adrenal support. If it is steady but low, you need more thyroid and adrenals are likely fine.

1. *www.drrind.com*

NOTE: The comparison of averaged daily temperatures is also an excellent method to know if you are on enough cortisol for your needs. If the temps fluctuate by more than 0.2 - 0.3 °F *from each other, it's a clue that you need a raise of HC.*

Patients have found that mercury thermometers are the most accurate and many of the digitals are not. Digitals can become inaccurate from being dropped, having old batteries, or too much water exposure. Also potentially accurate are the liquid metal thermometers.

If you use a mercury or liquid metal thermometer, leave it under your tongue long enough to get an accurate temperature, which is a least 5 - 7 minutes. Mercury thermometers can be found in online auction sites and antique stores if you are diligent.

Broda O. Barnes, the author of *Hypothyroidism: the Unsuspecting Illness*, recommended doing your temperature by placing the thermometer under your arm for 10 minutes. But he also mentioned that it's about the same as doing the thermometer orally under your tongue. So for convenience sake, we lean towards oral.

- **BLOOD PRESSURE TEST:** Take and compare two blood pressure readings–one while lying down and one while standing. Rest for five minutes in a recumbent position (lying down) before taking the first reading. Stand up and immediately take your blood pressure again. In those with healthy adrenals, the blood pressure will rise 10 - 20 points in its push to get blood to your brain. Or at the very least, it will stay the same. If the blood pressure is lower after standing, it's a clue that your adrenals are sluggish. The degree to which your blood pressure drops while standing is often proportionate to the degree you're adrenally fatigued. We have learned that doing this test in the morning can reveal adrenal fatigue more readily than doing it in the evenings, but we encourage both times of the day, as one can be normal, and the other more revealing.

DISCOVERY STEP THREE: If you answer yes to some of the questions, or if the tests are suspicious, patients have found it highly beneficial to do a **24 hour adrenal saliva test**, which you can order without a prescription and do right in your own home. See Addendum D for a list of facilities that offer a home saliva test kit.

Testing your saliva has to be done without being on a cortisol medication, or being completely off for one to two weeks prior to testing, since the manual use of cortisol skews your results[1].

The beauty of the saliva method is that it tests your cortisol levels at four different times of day and allows you to view your daily cyclic adrenal function. Doing the same thing with blood might be just as good, but it has three drawbacks: one, it hurts; second, it would take driving to a lab facility four times; and third, how many facilities do you know of that would be open for you at 11 pm? So with those difficulties, saliva has become our best choice. Additionally, we have found that the results given for saliva seem to correlate almost precisely to how we are feeling or symptoms manifested at those particular times.

When doing saliva tests, it can be helpful to drink plenty of fluids the day before. And on the day of the test, keep a lemon handy to sniff to help you produce plenty of spit. It generally takes up to 20 - 30 minutes to fill a vial[2].

IMPORTANT: you do **not** want to take your Armour sublingually that day to prevent extra residue from mixing with your saliva. Additionally, even if you swallow your pill, you risk having a higher free T3, since T3 peaks about two hours after you take it. So we recommend that if you take your thyroid medication, swallow it immediately after the noon test, and swallow again right after the 5 pm test.

If a situation prevents you from continuing to spit into the vials, you can freeze what you have done that day, and resume the next. Whatever happens, you will need to send your samples back the day after you finish, and preferably overnight

1. *www.macses.ucsf.edu/Research/Allostatic/notebook/FAQs-salivcort.pdf*
2. For collection tips: *www.zrtlab.com/Page.aspx?nid=384*

delivery. If you fail to use the overnight delivery, you risk having your saliva deteriorate from a slow delivery and getting odd results.

An important note: *if you are symptomatic with hypothyroid, your readings may actually be even lower than your saliva results will show, since being hypothyroid results in a slower clearance of cortisol from your body. In other words, you can be even worse than the results show.*

Interpreting your adrenal saliva results goes beyond being satisfied with being "in range". Generally, individuals with healthy adrenals will have the 8 am reading towards the top of the range, if not slightly over. The noon reading with strong adrenals will also be in the upper part of the range, but not quite as high as the morning. The afternoon result will be a bit lower and generally mid-range or slightly lower, and the 11 pm to midnight result will be at the bottom of the range, such as 1 with a range of 1 - 4, which allows you to sleep, just as the high morning reading helps you wake up refreshed.

Specific advantages of saliva over blood test

Cortisol levels can vary during the day–a patient can be optimal at one time of the day and low at other times. Saliva will test four key times, generally 8 am, 11 am - noon, 4 - 5 pm and 11 pm to midnight, whereas a blood test is often once, or twice at the most. And there's a bonus with saliva–you don't need a prescription, and you can do it in the comfort of your own home.

Patients have found that some doctors either have little knowledge about saliva testing, or they dismiss it. Granted, we have questioned saliva results for thyroid antibodies and female hormones–they seem odd at times. And if your saliva stays in the mail too long, you can get skewed results. But cortisol saliva results have always seemed to correlate with our symptoms of low cortisol and adrenal insufficiency. Thus, we can highly recommend it to other patients and in turn, recommend that you take the results with you to your next doctor's appointment and explain the correlation between the results and how you feel.

Overall, the adrenal saliva test cost is reasonable. But if a person can't afford it, but strongly surmises sluggish adrenals based on their answers to Discovery Steps One and Two, or based on the over-reactions to low doses of Armour, it may be safe to experiment with cortisol support with your doctor's guidance, which is outlined in the next chapter.

Additional tests to consider:

- **DHEA (which saliva testing often does)**
- **Pregnenolone**
- **Aldosterone**
- **Renin**

DHEA (Dehydroepiandrosterone) is secreted by the adrenal glands and is a precursor for testosterone in men and estrogen in women. It appears to have many benefits beyond those hormones.

Pregnenolone is the precursor to all adrenal hormones, including DHEA. Anti-aging doctors prefer to see this hormone optimal.

Aldosterone is an adrenal hormone that helps regulate your blood pressure and blood volume. It inhibits how much sodium is released into your urine and controls your electrolyte balance. It works with **renin**, a circulating enzyme. Hypothyroidism can serve to make low levels of aldosterone. If you also have low aldosterone in addition to your low cortisol, symptoms will include frequent urination at night and a craving of salt.

Two choices for adrenal treatment

There are two methods to treat the adrenal fatigue experienced by a large body of hypothyroid patients: the use of herbs, vitamins and a change in lifestyle, or supplementing with cortisol to replace what is lacking. The former strategy is wonderfully explained in Dr. James Wilson's book *Adrenal Fatigue: the 21st Century Stress Syndrome*, and I highly recommend it.

Additionally, there are some quality over-the-counter adrenal glandular supplements that can help. They contain a certain amount of animal adrenal tissue. Isocort is a popular choice by many patients, and it is usually found over the internet in a variety of website locations.

But though all the above strategies are important and recommended, most patients with adrenal fatigue have discovered the need to use cortisol supplementation to treat their low cortisol. The supplementation, which is considered bio-identical to our own cortisol, is called hydrocortisone a.k.a. HC with a brand name of Cortef. This is prescribed by your doctor.

Is it difficult to find a doctor who understands treatment of adrenal fatigue with cortisol? Definitely. But they are out there, and if you do your homework, and present your information well about the large body of hypothyroid patients who have this condition, and how it's treated, you might at the very least find a doctor who is open-minded enough to let you take the lead based on your knowledge, while guiding you.

Controversy

Cortisol treatment has had a history of overuse with severe side effects. That fact seems to cause a knee-jerk reaction of negativity about its use with doctors. But as Jeffries stated in his book *Safe Uses of Cortisol: Cortisol is a normal hormone, essential for life.* And in this case, the treatment strategy with cortisol is with physiologic doses, not the large pharmacologic doses we once saw in the past. Physiologic refers to doses which replace, resemble or promote normal functioning, whereas pharmacologic refers to extremely high doses.

When cortisol in the form of hydrocortisone (HC) is used to replace what your adrenals are not giving you, some information and individuals will claim that 20 mg of HC is a full replacement dose, and if you go any higher, you are risking permanent suppression of your adrenals and the HPA axis (i.e. the communication between your hypothalamus, pituitary and adrenal glands). Yet others will state that the full replacement can be much higher, such as 40 mg at the minimum. So the question remains: how much is too much?

What doctors and their patients who have adrenal fatigue have found is that for many, staying with a cookie-cutter, one-size-fits-all amount like 20 mg or less simply doesn't adequately get thyroid hormones to the cells, no matter what studies and research implies. Temperatures are still unstable, and symptoms of low cortisol still persist. 20 mg may be a physiologic (beneficial) dose for some, but not for others.

Patients who find that 20 mg of HC hasn't yet stabilized their temperatures or removed low cortisol symptoms after a few weeks, or they still have a high free T3 with continuing symptoms, will then raise a bit higher, and eventually find their sweet spot. It's common to see HC amounts from 22.5 to 30 mg.

One important aspect that critics of the higher doses miss is that some adrenally-challenged thyroid patients end up needing more HC because of digestive issues from their hypothyroid state. Having problems with malabsorption is not uncommon–the failure to absorb from your GI (gastrointestinal) Tract, and most specifically your stomach and/or intestines. The symptoms of an absorption problem may be silent, or you may have diarrhea, bloating, gas, reflux or discomfort. Digestive problems result in some patients needing more HC to achieve the same stabilization of temperatures as someone else achieves from a lower amount.

Another fact missed by critics is that biologically, endogenous cortisol production by men with healthy adrenals is greater than by women with healthy adrenals. So men are going to need higher supplementation amounts with adrenal fatigue.

When higher doses aren't doing the trick

Some patients will find themselves at doses higher than 30 mg of HC and still have fluctuating temperatures and problems with raising Armour. The next step can be to move the dosing schedule to 3 hours apart rather than 4. So, if you were on a schedule of taking your doses at 8 am, noon, 4 pm, and bedtime, you can try 8 am, 11 am, 2 pm, and bedtime. Or, another option might be splitting the 2 pm dose, and your

schedule becomes 8 am, 11 am, 2 pm, 5 pm and bedtime. It finally does the trick. Again, it's not uncommon to see men in the 30 - 40 mg range at a minimum when successful.

Or a few patients finally switch to Medrol (Methylprednisolone) with their doctor's guidance, a longer acting version, and find great success. But most prefer to stick with HC and find the amount that does the trick. Bottom line, wisdom on the amount of cortisol you need comes from listening to your body. Having an open-minded doctor to work with is an additional benefit.

The span of cortisol treatment

For the majority of hypothyroid patients with primary adrenal fatigue, your cortisol treatment is not meant to be for life. Doctors we respect have stated that HC supplementation is short-term, meaning treatment lasts approx. 8 weeks to a few months. But patients and doctors who use the treatment have discovered that treatment seems to need the "few months" to a year or more before one is able to succeed in a slow weaning off process.

Additionally, HC treatment needs to be enough to take the stress off the adrenals, to stabilize one's daily averaged temperature from day to day, and to allow thyroid hormones to adequately make it to the cells...the latter which plays a part in de-stressing the adrenals.

For those with secondary adrenal fatigue, or low cortisol production from a pituitary or hypothalamus problem, cortisol supplementation may go on for life. But you may be able to lower your cortisol somewhat after initial treatment.

If you have primary adrenal fatigue and the weaning fails, the problem may lie in one of three areas: first, you didn't raise high enough to stabilize your temperatures; second, even if you did find stabilization of temperatures, you didn't fully correct your hypothyroid state; or third, you weaned far too fast. When you do wean, it will be important to continue stress dosing to help your adrenals withstand stress.

You're not alone if you find you can't seem to tolerate desiccated thyroid, or have issues when you try to raise your dose. The corner will be turned when you recognize the problem, and treat your adrenal fatigue.

See Addendum F for the more frequently asked questions and answers about adrenal fatigue by thyroid/adrenal/hypopituitary patient Bob.

CHAPTER 6

How To Treat Your Sluggish Adrenals

Thyroid patients with adrenal fatigue, along with certain wise and wonderful doctors, have learned by the seat of their pants about the correct treatment of adrenal fatigue. This chapter presents two of those strategies: one for those who might not have any serious issues with flagging adrenals, but feel their adrenals could use support, and the second for the majority who find themselves with low cortisol and a failure to remove their hypothyroid symptoms when they raise Armour.

Adrenal Game Plan #1:

If saliva lab results or symptoms do not show a serious adrenal problem, and you have no issues with your use of desiccated thyroid, yet you know your adrenals may be challenged by emotional, biological or physical stress and could use support, there are a variety of strategies you can use to assist your adrenals. This can also be helpful for women who are going through the hormonal changes ~~of peri-menopause and~~ early menopause. It's also highly recommended that you communicate with your doctor if you are trying these over-the-counter methods.

One important note: patient experience has repeatedly shown that these strategies are not enough if saliva results prove low cortisol or you have problems with your use of desiccated thyroid. Adrenal Game Plan #2 will need to be implemented, as well.

1. Licorice Root. If your cortisol levels are not particularly low, and if you do not have high blood pressure (which it can exacerbate), licorice root with its Glycyrrhizic acid is a natural support of your adrenal glands since it slows and can inhibit the breakdown of cortisol in your liver. There is subjective evidence that if you take it with whole milk, its results are even better.

Recommended amounts of this herb are based on your response, or around 300 - 500 mg per day. Some recommend up to 900 mg a day. It's also suggested that you take a break from the licorice root treatment after 3 - 6 weeks, then resume. It's not recommended if you are pregnant. A few patients report a pounding heart while on licorice root, even though blood pressure did not rise. Others do fine.

Sandy, who found herself with symptoms of adrenal fatigue, but couldn't afford the saliva test, states:

> *I knew I had an adrenal problem, because I had a terrible time coping when my children needed this or that, and I'd get nauseous at the drop of a hat. I also found myself shaking when I had to discipline my children. I was a single mom, too, and finances were tight. I heard about licorice root and got it. And I want to report that it made a difference in my abilities to cope. I now use cortisol, but I was very impressed with what the licorice root did for me at the beginning.*

2. Vitamin C, all Vitamin B's etc. Your adrenal glands, especially the cortex and medulla, have the highest amount of Vitamin C in your body. So it may be wise to make sure you are getting adequate amounts of this important vitamin in your diet to support the function of your adrenals. Recommended amounts vary from 1000 mg to the amount you can tolerate before getting loose bowls.

The B-vitamins are also crucial for optimal adrenal function, and it's recommended to find a good balanced B-complex formula. They should include B1 (thiamine), B2 (riboflavin), B3 (niacinamide), B5 (pantothenic acid), and B6 (pyridoxine), with special emphasis on the latter two. B-vitamins are well-known for their ability to counter the effects of stress. Plus there is evidence that diet alone is not giving us enough of our B-vitamin need.

James L. Wilson, in his excellent book *Adrenal Fatigue: the 21st Century Stress Syndrome,* also recommends adding the following to your C's and B's: Vitamin E, magnesium, calcium, trace minerals, fiber and certain herbs like the licorice root, plus Ashwagandha Root and Leaf, Korean Ginseng Root, Siberian Ginseng Root, Ginger Root, Ginkgo leaf, etc.

3. Laughing and enjoying your life. Your attitude towards your life can play a unique role in the health of your adrenals. For example, the simple pleasure of laughing is said to stimulate your adrenals in a positive way, and may be even be increasing the parasympathetic supply to the adrenals.

In fact, laughing is so healthy that it can even reverse some serious illnesses, as Norman Cousins experienced and explained in his book *Anatomy of an Illness,* which I highly recommend. I remember a stressful time in my life that I consistently and purposely watched every episode of America's Funniest Home Video's–a television program which gave me great joy and always some belly laughs.

Another beneficial recommendation is to *slow down* and enjoy your life. No adrenals enjoy a body that goes-and-goes-and-goes as if there's no end to the going. What they do love are those times each day that you stop and smell the roses. The roses can include anything that is relaxing and which you enjoy thoroughly. Even meditation and yoga can promote an inner joy that will help your adrenals.

This strategy can also mean to change the stressors in your life, or at the very least, change the way you deal with them. Your adrenals appreciate an attitude of either "I'm going to remove this particular stress from my life", or "I'm going to accept what I can't change, and find joy around it."

If you take your breathing for granted, don't. Take purposeful moments to take in a deep breath, hold, and release, which can break that cycle of stressful coping. In fact, do it right now and notice a renewed feeling of calm.

4. Sleeping and rest. Your body has a healthy and beneficial natural rhythm, with your cortisol at its highest in the morning to help wake you up and get you going...to the lowest in the evening to help you fall asleep. So, the worst thing you can do to your adrenals over time is ignore your body's strong hints in the evening to go to bed. Carla explained:

> *I must have my Dad's genes, because I simply hated to go to bed at night. I resented putting down my sewing simply because my body wanted to sleep. So I fought it regularly, not going to bed until 2 am when I could. But I noticed that I became more and more tired during the day, and I felt stressed. So I finally decided to give in to my body, and go to bed when it was telling me to, which seemed to be by 11 pm. Yeah, I resented it at first, but I then started to feel a lot better. And to make up for going to bed on time, I found myself with better mornings to get back to my sewing.*

5. Eating regularly with wise choices. As much as supplements can be beneficial, there is no substitution for what you receive in food, such as vegetables, whole grains, healthy fats, and fruit. Food, especially raw foods, give us the most natural form of vitamins and minerals, fiber and phytonutrients. Phytonutrients are those compounds which help fight cancer and promote good health, including the carotenoids (that which makes a fruit or vegetable colorful, such as carrots), isofavones (found in peanuts), or flavonoids (the red color of fruits or found in tea).

On the other side of the coin, certain foods act as stimulants, and your adrenals react. Those foods include excess sugar, simple carbohydrates, and even caffeine, which all need to be avoided or eaten sparingly.

Another good strategy with the food you eat is to choose several small meals rather than two or three large ones. This helps to keep your blood sugar levels steady.

6. Keeping exercise beneficial rather than over-stimulating. The more intense your exercise routine, the most taxing on your adrenals. Thus, moderate to light exercise can be more beneficial.

7. Salt as food for your adrenals. Adrenals thrive on salt. It isn't coincidental that adrenal fatigue, especially in the presence of low aldosterone, another adrenal hormone, causes you to crave salt. When your adrenals become sluggish, salt can be released from your body via your urine and you become sodium deficient. And since the cells in your body require sodium to function optimally, it's especially important to give sodium back to yourself. The salt of choice in unrefined sea salt, since it has a complement of absorbable trace minerals not found in table salt. This includes potassium, which helps hold water in your cells, and magnesium, which is a basic building block for adrenal hormones and supports its function.

You can add unrefined sea salt to a liquid such as water or orange juice (for added potassium), but be careful with orange juice if you tend to have blood sugar issues. Recommended amounts of sea salt are approximately ½ tsp, and up to twice a day. Since unrefined sea salt is lacking in iodine, you may need to add iodine back into your diet, via Kelp tablet, Iodoral or Lugols iodine. For peace of mind, check your blood pressure occasionally when using sea salt, though you may find that unrefined sea salt causes no blood pressure issues. Also note that adrenal fatigue can cause low blood pressure, so adding the sea salt can bring it up to more normal levels.

8. Quality over-the-counter adrenal support. Direct support of your adrenals can be found with good OTC adrenal support supplements from your local health food store, especially if you are going through a protracted or acutely stressful period, or have minor low cortisol saliva results. Many of those products contain raw adrenal glandular, which is helpful.

One brand called Isocort is popular with patients as a quality adrenal support, but you may have to use the internet to find it. It is stated to give 2.5 mg of cortisol per tablet, although patients have experienced its cortisol content to be much less and subjectively closer to 1 to 1.5 mg per tablet. Ingredients include: Freeze-Dried Adrenal Cortex (soluble frac-

tionation) from New Zealand Sheep, Echinacea Extract (trace amount), Prunus and Lomatium dissectum root isolate (kreb concentrate-2%) in pellet base of lactose and lactase.

Adrenal Game Plan #2:

Though many patients find that the above strategies are helpful to keep healthy adrenals strong, and can be beneficial even when adrenal fatigue is present, they may not be enough to stop the problems associated with their level of adrenal fatigue and low cortisol, nor do they help resolve the problems encountered when using desiccated thyroid. The latter continuing problems, in turn, only serve to continue to stress the adrenals–a catch-22! In fact, it appears that the majority of hypothyroid patients who find themselves with adrenal fatigue are going to need a crucial addition to the strategies in Adrenal Game Plan #1: cortisol supplementation to replace what your flagging adrenals aren't giving you.

Granted, the OTC adrenal supports mentioned in #8 above do contain some measure of cortisol if the product has glandulars. They are definitely worth a try. But it may not be enough to adequately treat your adrenal fatigue. This is especially true if your cause of adrenal fatigue is from hypopituitarism, where there is a greater need for cortisol rather than simply herbs or weaker over-the-counter supplements.

Another problem with OTC adrenal glandular products is that they will also contain adrenaline-like compounds which will have an effect akin to whipping a tired horse in those with more severe adrenal fatigue.

The next step is to talk to your doctor about treatment with a physiologic dose of prescription cortisol, or the therapeutic amount that safely gives you back what your adrenals are not. This amount, in turn, allows thyroid hormones to make their way to your cells without pooling in your blood. The medication of choice is called hydrocortisone, aka HC, and the most common brand name is Cortef. It's in pill form and is a rapidly absorbed, man-made chemical form of cortisol, entirely similar to what your own body would be producing.

The dose amount that has repeatedly shown to work best for patients is approximately 20 - 30 mg of cortisol, which according to William McK. Jeffries in his book *Safe Uses of Cortisol 'takes the strain off of the residual adrenal tissue and provides for more functional reserve in times of stress'*. It's also called a physiologic dose of cortisol, rather than the high pharmacologic doses with their overriding side-effects. Because of digestive issues due to your chronic hypothyroid, which prevents adequate absorption of what enters the stomach, a few patients may need 30 - 40 mg or higher.

Your optimal amount of HC is meant to be multi-dosed to more closely match the normal rhythm of your natural secretion. Example is below.

In his paper titled *Suggestions for an Approach to the Management of Thyroid Deficiency*, UK private practitioner Dr. Barry Durrant-Peatfield recommends 20 and up to 40 mg of cortisol, if needed, to stop the symptoms of low cortisol:

> *Adrenal insufficiency is dealt with by the provision of the two hormones most likely to be lacking; Cortisonehydrocortisone, and DHEA. (as pointed out above, low DHEA may be used to infer low cortisone output). The treatment therefore, is the exhibition of, ideally, Hydrocortisone. This should be given in divided doses initially of 5 mg qds; after a week, 10 mg qds may be used. This remains a physiological dose, not challenging or suppressing the adrenal function, but supplementing it. In these doses all of the usual anxieties associated with cortisone do not apply, since restoration of normality is being aimed at.*

Patients have learned firsthand that there should be no hesitation for a doctor to allow a patient to raise up to at least 20 mg to see if it will fully support fatigued adrenals. This adequate support will be evidenced by doing the daily averaged temps as explained in Discovery Step Two in Chapter 5. But we often observed that many seem to need at least 22.5 - 30 mg at the minimum before adrenal fatigue symptoms are removed, temperatures are stable, and thyroid hormones can get to the cells.

When patients find their individual optimal amount of HC, they will note their daily averaged temperatures aren't fluctuating anymore, as well as relief of certain symptoms (because the thyroid hormones are now getting to patient's cells.) Desiccated thyroid may still need to be raised.

NOTE TO MEN: Since men secrete more cortisol than women, you will probably need higher levels of cortisol support than women. For example, where a female may end up needing 25 mg of cortisol in order for her thyroid hormones to fully reach the cells, a male may need 30 - 35 mg In fact, it's not uncommon to see most men in the 30 - 50 mg range before optimal. It's individual, but just as with women, you will know when your daily averaged temps stop fluctuating more than 0.2 - 0.3 °F from each other (see Discovery Step Two in Chapter 5).

Dosing With Cortisol

Valerie Taylor, one of the top thyroid patient experts on adrenal support, developed the following dosing schedule after doing extensive research and discussing it with a few physicians. It brings you up to 20 mg HC:

Day 1 - 3:	2.5 mg first thing in the AM
Day 4 - 6:	2.5 mg AM and four hours later 2.5 mg
Day 7 - 9:	2.5 mg first thing; four hours later 2.5 mg; four hours later 2.5 mg
Day 10 - 12:	5 mg first thing; four hours 2.5 mg; four hours 2.5 mg
Day 13 - 16:	5 mg first thing; four hours 5 mg; four hours 2.5 mg
Day 17 - 20:	10 mg first thing; four hours 5 mg; four hours 2.5 mg; Bedtime 2.5 mg

Note above that the schedule results in a dosing of four times a day. This multi-dosing spread is important for three reasons: 1) it provides a more steady dose of HC since it falls approximately 50% (its half-life) within 1 ½ hours; 2) no dose is so high that it turns off your own production later, and 3) it better replicates your own cortisol rhythm, which gives you more cortisol in the morning, and subsequently smaller

amounts during the day. Some need to space the doses every three hours rather than four. You'll figure that out if you find yourself flagging before the next dose.

Why a nighttime dose? Because cortisol is needed to raise your blood sugar (glycogen) stores, and without adequate cortisol, nighttime hypoglycemia will occur. Or, if your nighttime cortisol levels are too high, nighttime cortisol dose will send a message to your pituitary to stop pounding on the adrenals to produce. If you have to cope with low blood sugar at night before you can correct it, try eating a high protein snack at bedtime.

Some patients report they have difficulty sleeping when they first start cortisol. At first, it may simply be your body reacting to getting what it desperately needs. So over a few weeks, it will calm down. Or, you may find you need that final 2.5 mg at bedtime to coax you into a sounded and quicker sleep.

Finding the right amount of HC

Once you have held the 20 mg of HC for a few days, you will want to do the averaged daily temperature test explained in Chapter Five in Discovery Step Two and see if it stabilizes your temperatures. It's the stabilization of your daily averaged temperatures that will tell you if you are on the right physiologic amount for your needs and the improvement of your health.

If you find that 20 mg is not stabilizing your temperatures, check with your doctor about raising the noon dose by 2.5 mg, hold and check your temperatures (daily averaged) for at least five to seven more days, and see. If you need another raise, it can then be added to the afternoon dose to equal 25 mg, and so on. At 30 mg, the dosing might be 10 mg, 10 mg, 5 mg, 5 mg. Most patients try to keep the morning dose no larger than 10 mg so as not to shut down the ACTH later.

How to know if you are on too much? Too much HC can be ascertained by excessive sweating, a much larger increase in weight, easy bruising, weakness, facial redness or even mood swings. An excess amount can also weaken your immune system, resulting in an increase in illnesses.

Unfortunately, you cannot use another saliva test to ascertain if you are on the right amount. The manual addition of cortisol to your body skews the results, giving a false high reading. The most accurate way to know when you are on enough is via the daily averaged temperature tests.

When you are already on Armour when you start using cortisol

If you discover your low cortisol condition after you've already been on Armour, there's a good chance that the thyroid hormones, especially the active hormone T3, has pooled in your blood. Since the raise of cortisol will suddenly facilitate movement of those hormones from your blood to your cells, there is wisdom in decreasing your desiccated thyroid as soon as you start HC as outlined above to prevent an uncomfortable "dump" of those pooled thyroid hormones.

Don't be fooled into thinking that the dump of T3 from your blood to your cells is easy to ride. That dump can feel quite uncomfortable with extreme anxiety, racing heart, and/or other assaulting symptoms that can last for days. If this happens, even after decreasing the Armour, doctors guide their patients to stop the Armour completely for a day or two or more, then slowly raise back up.

How much do you decrease your Armour? If you are higher than one grain, withdrawing your dose down to one grain is prudent when you first start on HC. Some thyroid patients might even go lower, but it's individual. If you have been on Synthroid or any other T4-only treatment, you probably won't have a free T3 high enough to worry about the dump since it's not direct T3, but T3 from conversion.

The amount of HC when Armour is introduced

It's been noted that once you get up to 15 mg, you can safely start on one grain or less. Patients then raise their Armour in small amounts, just as outlined in Chapter 3, and at the same time as they are raising their HC. If your adrenal fatigue is severe, you may have to stress-dose with an extra amount of HC with each raise, such as 2.5 - 5 mg, for a few days.

Remember to continue your daily averaged temp comparison as a way to ascertain if and when you are on enough HC. (See Discovery Step Two in Chapter 5).

Taking HC with food

As a precaution, always take your HC medication with food, which includes the bedtime dose. Some patients report nausea or stomach upsets when taking hydrocortisone without food in their stomachs. Remember to take it with food for the bedtime dose, as well.

Very rarely, some patients will have a hard time tolerating HC, even with food. The clue is having a reaction within an hour after taking HC. The potential solution is to cut the dose in half, taking the smallest amount you can, and raising much slower.

The use of Hydrocortisone Cream

Some patients and their doctors report the successful use of 1% HC cream in the treatment of their low cortisol issues. It's especially helpful when the use of oral HC was simply too hard on one's stomach, even with food. The 1% cream contains 10 mg HC per ¼ tsp. Occasionally, some patients feel the cream was doing little for them; others state it worked quite well.

When you have high nighttime cortisol

Many adrenally-fatigued patients can find themselves with high cortisol at night, in spite of low cortisol in the morning or during the day. Symptoms of high nighttime cortisol include having difficulties falling asleep, or waking up frequently during the night. Saliva cortisol results can confirm it. If that's you, the nighttime dose of HC can send a message to your pituitary to send less ACTH knocking on the door of your adrenals. Some patients might temporarily need 5 mg HC to tone down the production of the adrenals and to allow sleep. Being on the scheduled daytime cortisol above is going to eventually correct the high nighttime cortisol.

Other alternatives include:

1. **Melatonin:** This is taken at bedtime, since high nighttime cortisol can turn off your natural melatonin production, which means you aren't going to fall asleep easily, or stay asleep. It may take several weeks before an effect from the nighttime dose is noticed.

2. **Phosphatidylserine, aka PS:** This supplement is also taken at bedtime, with a recommended dose ranging from 300 - 1000 mg which helps lower high cortisol. Phosphatidyl Serine (PS) is a fatty acid found in your immune cells and muscle tissue, but is also prevalent in your brain cells. It's actually promoted as a benefit for brain improvement, such as enhancing your memory, concentration, alertness and mood, besides cell repair and improving your immune function. But thyroid patients with high nighttime cortisol discovered that PS helps lower cortisol when its high levels are damaging–lowering it from 30% to 70% according to different literature.

   When you shop for PS, you may find a product called a Phosphatidyl Complex, containing both PS and other Phosphatidyl's, including Phosphatidyl Choline, aka PC. Phosphatidyl Choline comes from lecithin, and it plays a role in cell health and the brain. It metabolizes down into choline, and also helps our liver. The "complexes" will often say 500 mg, of which 100 mg is the Phosphatidyl Serine. But some patients report that the complexes give them a spacey feeling. So we tend to recommend ***Phosphatidyl Serine with no complex.*** One downside of PS: it's derived from Soy. Soy is a known thyroid inhibitor. So you might want to pay careful attention to your other sources of soy and decrease them when you are using PS.

3. **Zinc:** Studies report that zinc, 25 mg or higher, lowers cortisol significantly even four hours after the dose taken.

4. **Holy Basil:** Many studies show that this herb, also called Ocimum sanctu, has proven cortisol-lowering properties. It may even help with regulating your blood sugar levels, as well as being an anti-oxidant.

Your goal with cortisol supplementation

As a thyroid patient with adrenal fatigue, you have an ultimate goal of dosing with the least amount of cortisol that will allow your thyroid hormones to be adequately received into your cells. For many, that appears to be around 20 - 30 mg, give or take, and occasionally higher, plus multi-dosed approximately four times a day. There is no cookie-cutter, one-size-fits-all amount. Your optimal amount of HC will also resolve other low-cortisol symptoms, and will give your adrenals the rest they desperately need.

Again, the way to know when you have found your optimal amount of HC is to do the daily averaged temperature test as outlined in Chapter 5 under Discovery Step Two. When each daily averaged temperature for several days is within 0.2 - 0.3 °F of each other (or 0.1 Celsius), you know you are on the correct amount. Then you raise your desiccated thyroid to its optimal amount, which will bring the mid-afternoon temperature to a consistent 98.6 °F.

We have noticed that some patients, whose adrenal fatigue is quite bad, or if male, may need at least 30 mg or more before adequately getting thyroid hormone from the blood to the cells. Peatfield has mentioned that some are occasionally up to 40 mg or higher, though the latter amount may be due to poor absorption issues. It's never recommended to go higher than your needs to accomplish all the above. If you do go too high, and hold that high amount too long, you can risk suppression of your adrenals and immune system. Once you have achieved both goals–enough HC to stabilize your temperatures and enough Armour to remove your hypothyroid symptoms–you are taking great stress off of your adrenals.

Additionally, treating your low cortisol first, followed by optimizing your thyroid treatment, can help rebalance your sex hormones. Once you achieve the two former goals, you can then check your sex hormones and see if they continue to need treatment.

Raising HC slow and easy

Fast is not in the dictionary for adrenal treatment. When you start on a low dose HC, and with each subsequent raise, there should be spread of about three days. Once up to 20 mg or beyond, it can take at least three days and up to a week for the affects of the cortisol to be apparent, especially the leveling out of your temperatures. Slow and easy brings the best information, and the best results.

Stress dosing

Healthy adrenals would produce extra cortisol in times of physical or emotional stress to enable your body to cope. So, if you have to undergo a long-term or stressful event, a body injury, or even have a sickness like the flu, patients have found it wise to "stress-dose".

Valerie, a thyroid/adrenal fatigue patient advocate, shares the following information about stress-dosing she gleaned from reading and her own experience:

At the first sign of adrenal symptoms or symptoms of illness, I take 20 mg HC. This can be done twice daily for up to 3 days then it should be tapered off, dropping 1/3 the dose used for 2 days, then drop another 1/3rd, then in a couple days back to normal dose.

For every day stresses such as arguments, bad boss days, children sick or misbehaving, etc: at first sign of shakes, I would take 5 mg then wait 15 minutes. If symptoms persist, I take 5 mg more until symptoms stop. You can take up to 20 mg or double your daily dose for up to three days. Then it will raise your everyday needs so should be discontinued then.

Holiday stresses: Try to curtail holiday activities as much as possible. Delegate responsibilities, Do things ahead of time. Practice relaxation techniques such as hot salt baths, meditation, aromatherapy and whatever works for you. You are ill and it is OK

to not do as much as you usually do, or are expected to do. Do not be afraid to tell people this! Our illness is not very visible, especially to the uninformed. Do not expect them to know you are ill unless you tell them so.

Stress dosing may entail a complete raise in meds for the duration of the holiday period. Last year I took extra 5 mg every day from 2 weeks before Xmas till New Years. Then I tailed it back off to my regular dose. Some days are worse than others, guest arrivals, ornery guests, etc. I stress dose with whatever it takes to relieve adrenal symptoms up to double my daily dose, but for no more than three days straight.

Jeffries, in his book *Safe Uses of Cortisol* states:

> [In events of stress] *higher dosages of cortisol are required to maintain a physiologic state that would produce hypercortisolism with its well-known undesirable effects in the unstressed states. The increased secretion of adrenal hormones serves to meet an increased need during stress and tends to maintain homeostasis rather than to disturb it. The increased secretion does not cause a state of hypercorticism such as develops when the titer of these hormones is increased artificially in the absence of need. Hence, a patient with adrenal insufficiency under stress may require dosages of cortisol to maintain a physiologic state that would produce hypercortisolism with its well-known undesirable effects in the unstressed state. This higher amount can be up to double what you would normally take daily.*

Once you have stress-dosed for a few days, or the illness has started to subside, doctors guide patients to taper off the extra amounts a little at a time, eventually ending up with the amount they were previously on.

Note: if you find yourself frequently stress-dosing for emotional stress, you may simply not be on enough HC with stabilized temps.

When even higher doses of HC aren't doing the trick

It's not the norm, but some patients definitely experience that doses higher than 30 - 40 mg of HC are not helping thyroid hormones make their move from the blood, perhaps due to digestive issues or a problem with metabolizing HC too quickly between doses. And the higher doses increase the risk of side effects, including water retention, since HC has salt retaining properties. So with their doctors guidance, they then move to a stronger, longer-acting Glucocorticoid such as prednisone (brand name Delta) or prednisolone (the active metabolite of prednisone), or methylprednisolone (brand name Medrol).

Currently, **Medrol** has been the treatment of choice for patients who need more. Medrol may be slightly more potent in its glucocorticoid activity than either prednisone or Prednisolone, but its fluid-retaining properties may be much lower than HC. (Glucocorticoid refers to its similarity to the action of aldosterone, which controls salt levels and water balance.) Even more important about Medrol: it seems to have less side effects, such as a decreased danger of high blood pressure, and less stress on your liver.

But, Medrol can be much harder to dose. So getting off HC and moving to the strong medications like Medrol should be done only as the last resort. In conversion amounts, 1 mg of Medrol is equal to approximately 5 mg of HC. Patients who make the switch often end up on 6 mg of Medrol, spread out over the day, such as 3 mg first thing in the morning, 2 mg in the mid-afternoon, and 1 mg at bedtime.

Cortisol and weight gain

Many patients who treat their sluggish adrenals with Hydrocortisone report unwanted weight gain. There are a few reasons it can happen. One, oral administration of HC may encourage the body to produce glucose (blood sugar), which in turn causes fat production and storage from the excess insulin. Or, the mineral content of HC may be contributing to water gain. Or, correcting the low cortisol situation uncovers your continuing hypothyroid condition, which promotes weight gain

until you also raise your Armour. Or, you simply may be on too much and need to slightly lower it while still maintaining stable daily averaged temperatures.

Whatever the cause, it will be prudent to watch your diet far more closely than before, focusing on proteins and vegetables as the main part of your daily consumption, and much less on carbohydrates. When carbohydrates are consumed, choosing those that are low glycemic is a positive decision, since low glycemic carbohydrates are digested much slower than high glycemic. Examples of low glycemic foods include high fiber grains, berries, cottage cheese, meats, most vegetables, etc. Those foods to curtail or avoid are sugars, potatoes, pasta, white rice, and white flour products.

I can personally recommend the South Beach Diet as a good model for low glycemic eating. You can learn about low glycemic vs. high glycemic foods with several good books on the glycemic index at your local library.

Cortisol and blood pressure

If you have high blood pressure when you start on any cortisol treatment, it's a good choice to monitor your blood pressure during the treatment and keep in touch with your doctor as to the trends of your blood pressure. Treatment of aldosterone below can also causes changes in your blood pressure.

Low aldosterone

Aldosterone, a mineralcorticoid hormone, helps regulate levels of sodium and potassium in your body when your adrenals are healthy, i.e. it helps you retain needed salt, which in turn helps control your blood pressure, the distribution of fluids in the body, and the balance of electrolytes in your blood.

When aldosterone gets too high, your blood pressure also gets too high and your potassium levels become too low. You can have muscle cramps, muscle weakness, and numbness or tingling in your extremities.

When aldosterone gets too low, your kidneys will excrete too much salt, and it leads to low blood pressure, low blood volume, a high pulse and/or palpitations, dizziness and or light headedness when you stand, fatigue, and a craving for those

salty Lays potato chips in your cupboard. Symptoms of low aldosterone can also include frequent urination, sweating, and a feeling of thirst, besides the craving of salt.

Being on a salt-restricted diet only makes low aldosterone levels worse. Adding salt, specifically sea salt, can be beneficial, and is in fact recommended to all thyroid patients with low aldosterone. Sea salt contains important trace minerals, whereas most trace minerals are removed from table salt. Recommended amounts of sea salt daily are 1/4 to 1/2 tsp in water twice a day, and some go higher, if needed. If you end up needing a great deal more salt, you might have to consider Florinef, mentioned below.

Bob Harvey, a thyroid patient advocate, states that your body can struggle to maintain a proper balance of sodium and potassium in your blood, in spite of frequent urination. And the levels in your blood can appear normal. But symptoms will give it away, especially the craving for salt, frequent urination or sweating. He also explains that the reason your pupils will fluctuate is due to low aldosterone.

Additionally, when the adrenals are not making aldosterone, renin, a hormone from your kidneys, increases. If the renin is low, you could have a pituitary problem.

To test your aldosterone levels, you'll need to ask your doctor for either a 24 hour urine test or a blood test–the latter which is more highly recommended and is best done in the morning. It may also be important to avoid all salt for 24 hours before the test. It's worthy to note that aldosterone levels can be doubled if you are pregnant, and is normally a little higher in children than in adults. It's also better to do the test within the first week after you start your period, since your rising progesterone levels can affect the aldosterone.

For a complete picture, ask your doctor to include your renin, as well as sodium and potassium. You can test the latter two without a prescription here: *www.healthcheckusa.com.* Doing an aldosterone and renin test is highly recommended for a full picture.

The prescription medication of choice for low aldosterone is fludrocortisone acetate with the brand name **Florinef**. It's recommended that in working with your doctor, patients start

with a quarter of the 100 mcg pill rather than starting on a full 100 mcg. You can then raise by that same amount every week until you get to the full pill. Patients report noticing a positive effect within approximately 2 - 3 weeks, if not sooner. Check with your doctor for further information.

It's also important to note that some patients who are already on HC (cortisol) may have to lower it to compensate for the glucocorticoid potency of Florinef. It's also recommended to take your Florinef with sea salt mixed in water.

How long you will need to be on HC

With primary adrenal fatigue, it's quite individual and your doctor can work with you. Your first step is to make sure you have achieved two goals: enough cortisol to stop your fluctuating temps and allow thyroid hormones to reach your cells, then enough desiccated thyroid to stop the hypothyroid symptoms. After you achieve both, you may need a minimum of 8 weeks to several months before attempting to slowly wean off and to allow your adrenals to kick back in. In fact, "several months" is more common. Some may wait a year.

Many patients report they started to wean when they forget a small dose, and found they tolerated the lack of the dose well for several days. But again, don't rush it. Let your adrenals rest.

(Remember: if you are the minority with adrenal fatigue due to Hypopituitary, a secondary cause of your adrenal fatigue, you will need to be on HC the rest of your life.)

Letting others know of your HC use

I highly recommend the use of an ID bracelet or information in your wallet about your daily amount of HC, as well as the name of your doctor and phone number. Also inform close family members or friends what you are doing.

You may also find yourself feeling great relief if you carry extra hydrocortisone pills or cream with you when you are expected to be gone from your house for several hours. The worst thing you want to do, in your attempt to have better health and de-stress your adrenals, is to forget a dose, or not have what you need when it's time.

Weaning slowly is the key

Patients and their doctors have learned that the beginning of a successful wean means to cut off only 2.5 mg per three weeks at the minimum. Remember, by weaning, your rested adrenals are suddenly being encouraged to make up the slack. Let them get the message with ease. You can start by weaning off the latest dose, and then slowly move upwards in the day, or whatever time seems to work best for you.

We have discovered the importance of timing the wean to occur during the least stressful time of your daily life. This means avoiding holidays, stressful events or busy times of the year. If during your weaning process you encounter stress, you may have to stress dose as mentioned above. It will slow down the wean, but it will also prevent further stress on your adrenals.

When you feel ready to wean, consider it a huge no-no to stop your HC suddenly. This can create an adrenal crisis–a life-threatening situation where your body is suddenly without the crucial cortisol. Symptoms include low blood pressure and weakness, headache or nausea, shaking or confusion, a rapid heart rate, or sweating.

Post-weaning strategies to keep the success

Once you have successfully weaned off your HC, there are important follow-up strategies to promote continued success. One is to continue over-the-counter adrenal support for a few months, especially in response to stress. Supplementing with Vitamin C, B-vitamins, and other anti-stress vitamins and minerals can be beneficial. Removing stressors in your life is important. Comparing your daily averaged temperatures can continue to be a monitor as to your adrenal recovery progress.

Perry, a thyroid patient advocate whose main focus is with men's issues, developed the following tips for weaning:

1. For some amount of time after weaning (6 months? We don't know yet.), your adrenals will be weak, and you will need to support them whenever stress re-enters your life.

2. The sooner you recognize the stress and respond with adrenal support, the more likely you are to avoid a major crash.

3. If you know something stressful is coming, you should begin supporting your adrenals before it happens. How much before depends on when this future event begins to occupy your mind (and cause stress).

4. Some early signs to look for are: a desire to snack continually; a tendency to "withdraw" from friends, family, and favorite activities; an exaggerated startle reflex; a tendency to get flustered by normal events like telephone calls; overreacting to the words or actions of others; a return of any of the symptoms you experienced the first time you needed adrenal support.

5. Adrenal support after recovery for periods of less than 1 week can be discontinued abruptly. If support is used for 1 week or longer, it should be tapered off at the same rate as you originally weaned. For hydrocortisone, a good rate seems to be reducing by 2.5 mg every 2 - 3 weeks.

6. Some events to watch out for and are nearly always stressful are: vacations; family visits; holidays; dental work; colds, flu, and other illness.

7. Don't consider going back on adrenal support as a defeat. Using adrenal support as needed during the recovery period will help you ultimately be successful in recovering full adrenal function.

High cortisol 24 hours a day

What if, unlike all the above, you find yourself with high cortisol at all four times of a saliva test? As author of this book, this is exactly what happened to me. And if I didn't do something quickly, I was destined to fall into the more serious stages where the adrenals can't keep up and cortisol becomes low.

My own high cortisol was due to a long term chronic estrogen dominance, followed by the use of topical progesterone. Once I figured it out, I stopped the supplementation. Within a few days, strong signs similar to estrogen dominance stopped. But I still had months of treatment to lower my high cortisol, and which included the liberal use of PS, as mentioned above.

High cortisol can go on for months before you realize its happening. When it finally rears its ugly head, you can have similar symptoms to low cortisol: easy fatigue, nausea in the face of stress, shakiness, lowered temperature, depression, achiness, etc. You will also tend to have high blood pressure. Additionally, because high cortisol makes conversion of T4 to T3 difficult, you end up having far too much T4 and a conversion to Reverse T3. The only way to accurately know you have high cortisol is to do the 24 hour adrenal saliva test.

The reasons you may have high cortisol are varied: chronic emotional stress, chronic health conditions, blood sugar problems, a compromised immune system, severe exhaustion, heart disease, too much weight, or like me, the use of topical progesterone. Each person has to figure out their own catalyst, and change it.

The bottom line of adrenal support

The sum and substance of adrenal support with cortisol is to give back to yourself what your adrenal fatigue can't give and takes away. And sometimes it's a guessing game, but patients come to know their bodies and how much cortisol they need to help get thyroid hormones to their cells, which will in turn takes further stress off the adrenals for future recovery. Support for aldosterone levels may also be needed for some.

Dr. Barry Durrant-Peatfield, a popular UK Thyroid and Adrenal Private Practitioner, has written an excellent book called *Your Thyroid and How to Keep It Healthy*, and he summarizes the entire process this way:

> *Once the hydrocortisone is started, the full support dose is now built up to effective levels over two or three weeks....spread out through the waking day. The reason (to*

spread the doses out throughout the waking day) is that it is not stored by the body and gets rapidly used; two or three hours will see it pretty well used up completely. Since a smooth level of support is desirable, the dose needs to be spread out. The final dose is usually 20 mg daily, that is half a tablet four times a day; but careful adjustment relating to the response may take the dose to 25 or 30 mg daily, exceptionally even 40 mg. These higher doses are related more to absorption in the stomach than to deficiency, but low adrenal reserve reaching Addisonian levels may make such doses necessary. Pg. 122

The length of time necessary to provide adrenal support is really very variable. My normal practice has usually been to obtain the best result with thyroid and adrenal support, and after six or eight weeks (of having optimal thyroid support with optimal cortisol support), start to tail off the cortisone supplement. If there are no adverse results, it may then be stopped–taking, say four weeks in the process. Sometimes, the patient starts to lose ground; and you then have the choice of replacing it with a glandular concentrate for a longer period or restarting the cortisone, and in another eight weeks or so another attempt to tail it off is made. Sometimes, the adrenals have been so badly hit that the adrenal support may be required for months, and if the adrenal glands never fully recover, for a more indefinite time. Again, I emphasize that if adrenal support is required, it must be given for as long as it takes; there is no risk to this since one is simply restoring the situation to normal, in the same way, and for the same reason, that thyroid support may have to be given indefinitely. Pg. 123

In conclusion, it's not uncommon for thyroid patients to find themselves with adrenal fatigue and low cortisol. Years of stress caused by undiagnosed hypothyroidism, or poorly treated hypothyroidism due to T4-only medications and the inadequacy of the TSH lab test, can result in adrenal fatigue. It explains problems you have while raising Armour. It can also

explain problems as you are going through major hormonal changes, including peri-menopause. The best part is it's very treatable.

We have learned not to get hung up on failures in our attempt to heal. Rejuvenation of our adrenals, once fatigued, can take time and patience, as well as particular lifestyle changes away from stress, and in the way we deal with stress. It can be slow, but the progress will be there!

See Addendum F for the more frequently asked questions by patients created by thyroid/adrenal/hypopituitary patient Bob Harvey.

CHAPTER 7

The Doctor Chapter

For this is the great error of our day that the physicians separate the soul from the body

-Hippocrates

Many times over numerous years while on either Synthroid or Levoxyl, I felt like a worn out piece of over-chewed bubble gum. And I just knew that a visit to a doctor was the answer, no matter how far I had to drive or how long the appointment took.

In fact, who as a thyroid patient, hasn't felt immeasurable hope that a doctor was going to help. And why not? They've had the most immense education and demanding training of most any profession, including several years of internship and residency before they even hang their shingle on the door.

So when you walk into their offices, it's like the once familiar Allstate Insurance commercial refrain: you know you're in good hands. The doctor or health professional is going to prescribe the right pills or use the best therapy to help you turn the corner towards better health.

Yet, to the degree thyroid patients have had high hopes in their highly educated and experienced doctor, to the same degree that hope has repeatedly turned to dust.

In fact, the compelling and reported experience of thyroid patients globally with their doctors ranges anywhere from disappointing and frustrating to shabby, filled with disrespect, ignorant, patronizing, pompous, close-minded and bordering on malpractice.

Intense, real, and extremely pitiful.

Are there doctors who are the rule to the exception? Yes. Patients will occasionally report about a doctor who was none of the above, or at the very least, the doctor was willing to listen to new ideas. But the reports by patients about doctors who are exactly like the above negative and descriptive paragraph is profound and shocking.

Stephanie, a thyroid cancer survivor who gives thanks, in part, to her use of desiccated thyroid, remembers vividly the doctor of whom she first asked about prescribing Armour. She had already observed the benefits it was giving other hypothyroid patients, and felt it was a right choice for her, as well.

In a blog she kept at the time, she wrote the following:

> *First, he breezes into the room and shakes my hand and exclaims "Well we had you on 175 mcg of Synthroid and you were experiencing hyper symptoms (TSH was 0.024) and we reduced your dose to 150 mcg but now your TSH is WAY too high so we need to bump you back up to the 175 mcg dosage again." EXCUSE ME???? I felt bad on 175 mcg and 150 mcg isn't working so let's just put you back where you felt bad and not think about options?? UGH!! I didn't say this but thought it. This is the point where I interjected that I wanted to know where my Free T3 numbers were so I had them run. I produced my lab slip for him. I told him that I had been studying T3 and how some people don't convert T4 to T3 well. He went on and on about how it wasn't true that they had done lab tests on dead babies and had found T3 in them. I said "WHAT???". I said "Listen again–I didn't say that I didn't make T3 at all but that I could be someone who didn't convert it WELL enough to give me what I needed." He quickly changed his tune and said "Oh I know what we can do. I'll leave you on the 150 mcg since you seem to feel*

well on that (never asked me how I was feeling though just assumed that since I hadn't called I was OK) and we'll add some synthetic T3–It's called Cytomel". UGH! I swear he thinks I am an idiot and it is so patronizing! I already knew his protocol before I got to his office. So at this point I interject with "Can I try Armour?" You should have seen how fast he looked up from his paper that he was writing on. The entire time he was telling me what we were going to do he couldn't take the time to look at me prior to this. He exclaimed "ABSOLUTELY NOT." I asked "Why not?" This pushed his buttons as he physically began to shake. I got the "Because it isn't for you." So I pushed further–"Why not?" Then he gives me the canned answer (I think they get this in Endo school) "Because it isn't stable." I said "What do you mean?" I swear this man was about ready to strangle me for asking questions and questioning his authority but I pressed on. He said "Because it is from a Pig and you don't want to take pig hormones."

As Stephanie continues in her blog, the doctor proceeded to give a variety of negative and condescending explanations against pig thyroid, including that she would die if she took it. She states next:

I left his office and went out to my car and cried. It is very hard to have a Dr. tell you that you will die of cancer if you take Armour–whether you believe it or not.

In the notes in his chart, he wrote the following:

Stephanie states that she would like to try Armour thyroid. I told her that this is unacceptable and I would not place her on it. She will have to see another physician if she wants to try this medication because it is animal derived and the T3 & T4 levels are not closely regulated, and cannot be independently adjusted.

You can almost imagine how Stephanie may have felt, leaving this doctor's office. Feeling awful, she was now being told that what might make her feel better, was not acceptable.

When you peruse most any thyroid patient group on the internet, or talk to thyroid patients one-on-one, you find that a multitudinous body of patients has had to endure similar scenario mentioned above, and multiple times throughout countless years. It makes you want to cry.

In the eyes of thyroid patients,
doctors have become visionless, indiscriminate
pill-dispensing, medical practitioner zombies.

Additionally, most thyroid patients who discover the truth about the inefficacy of T4-only treatment, or the failure of the TSH as the "gold standard" of diagnosis and dosing, will state they have been harmed. And any patient who has faced the condescending and dismissive attitude of their doctor when they dared to question their treatment will also state they have been harmed.

Being harmed by one's doctor is an action polar opposite to the oath of standards and ideals that most physicians took when they were about to embark in their medical practice. Have doctors come to see their medical school oath as nothing more than a staid and rote meaningless ritual? Part of the original Hippocratic Oath, which some schools have grossly modified or removed, states in the original Greek:

> *To please no one will I prescribe a deadly drug nor give advice which may cause his death.*

Yet, nothing has been more deadly to thyroid patients for the last five decades than a drug called thyroxine so exuberantly prescribed by most every doctor, and which has served to leave each and every thyroid patient with some residual hypothyroid symptom, whether recognized or not. This is equally so for the TSH lab test and its dubious normal range, which is prescribed across the board by doctors.

All you have to do is read my own story of 17 years (see Introduction), going from doctor to doctor to doctor, and not finding one who was thinking beyond his or her medical school training box to observe that perhaps thyroxine as a sole treat-

ment for hypothyroid was not working, or that the "normal" TSH range did not seem to conform with my clinical presentation! I also had to endure doctors who were dismissive, close minded, and condescending.

Aspects of my story, Stephanie's experience, and worse, can be found in millions of thyroid patients across the world. This is not a scenario that only involves a few. So now, we have to ask: are physicians listening?

Three crucial mistakes made by medical practitioners

Thyroid patients are growing in their knowledge and truth against what doctors have been doing. I now highlight three crucial and consequential mistakes that most all patients have experienced. Each mistake represents an area that needs drastic change:

1. **Making thyroid lab work the holy grail of diagnosis in lieu of obvious clinical presentation of thyroid symptoms**

Of all the mistakes listed, this misjudgment has been the most widespread and damaging, physically and psychologically to thyroid patients. Put yourself in the shoes of a patient who enters his or her doctor's office with factual and obvious hypothyroid complaints of continuing poor stamina, feeling cold, gaining weight, dry skin, hair loss and depression, only to be callously told that because the TSH or other lab results are within range, he or she is normal. Thus, it's concluded that her symptoms have nothing to do with hypothyroid. So, the doctor reasons, she needs other medications to treat the 'non-thyroid' symptoms, to eat less and exercise more, or see a psychiatrist.

Hogwash!

It has occurred not only when a patient first enters the office, having no prior thyroid diagnosis, but even more maddening when the patient is already on a thyroid medica

tion, including levothyroxine T4 as well as too low a dose of desiccated thyroid.

The litany from patients who have experienced this schizophrenic "normal" diagnosis in the face of continuing symptoms is full of angst. "I must be crazy!" is the normal outcry of this all-too-common encounter with doctors.

LeeAnn relates the following crazy-making scenario:

> *I was on Synthroid for 7 years, and I was depressed. There was no depression in my biological family, I had a happy marriage, and I loved my job in the courthouse. I made a lot of appointments with doctors, and each and every one told me I had a psychological problem. Three pushed anti-depressants on me, one insisted I needed to admit myself in a mental health facility at the Presbyterian Hospital, and two told me I needed to make an appointment with either a Psychiatrist or Psychologist. I fought it for a long time, then decided maybe I AM nuts and need help. It was chilling, let me tell you.*

Many years and decades before thyroid lab work came into existence, doctors paid attention to symptoms and dosed by those symptoms (as well as the exclusive use of desiccated thyroid). Today, the clinically presenting symptoms and signs of hypothyroid are no less obvious than a nose on a face, yet the constellation of hypo symptoms are routinely dismissed if ink spots on a piece of paper state otherwise. It's a one-track worship of the dubious TSH lab with its erroneous "normal" range, or the total T4 or free T4. So patients are left hanging over the alligators of their obvious hypothyroid symptoms with a doctor proclaiming "You are normal".

On the other side of the coin, you have the patient on desiccated thyroid who walks into the office feeling wonderful–full of energy, lowered cholesterol, freedom from depression, thickening hair–yet because of a suppressed TSH, they are told to lower Armour, which only results in the return of previous hypothyroid symptoms.

2. Maintaining complete ignorance about desiccated thyroid

Any thyroid patient who has dared to ask about desiccated thyroid like Armour has heard every single possible misconception there can be from the mouths of our doctors. Because of that, you come to believe that not one doctor can think beyond his medical school training, continuing education, medical journals, or the lips of his favorite pharmaceutical rep. It's as if the experience of patients who have successfully used desiccated thyroid like Armour, past and present, is completely and totally invisible.

Even worse are those patients who are citizens of countries where the use of a beneficial and life-giving product like desiccated thyroid is banned! Though there can be closed walls because of religious beliefs towards pork, the majority of patients who contact me about their nation's prohibition of desiccated thyroid appear to describe a misconception of the safety of the direct T3 in desiccated thyroid.

The following are actual one word descriptions made by numerous doctors to their patients about desiccated thyroid. As reported to patients by patients, they represent the ignorance that abounds among medical professionals, ranging from sublimely false to the absurdly ridiculous:

Unreliable,
Unstable,
Dangerous,
Inconsistent,
Old-fashioned,
Outdated
Unconventional,
Unregulated,
Harmful,
Toxic

Isn't it interesting that the only word that patients have found to be true about desiccated thyroid is that it's *old-fashioned*, just as it might be old-fashioned to wear clothes from your past that still feel good, or use vintage tools that still

work well. Patients have repeatedly experienced desiccated thyroid to be quite reliable, safe, consistent from dose-to-dose, regulated (United States Pharmacopeia (U.S.P) standards and FDA approved), modern, conventional and with life-saving results as compared to T4, thyroxine-only treatment.

Equally as bizarre and somewhat humorous are the descriptions that patients have reported coming right out of the mouths of their doctors. It probably only barely touches the surface:

- *You will get Mad Cow disease from prescription desiccated thyroid (Cough. It's porcine, not bovine)*
- *The T3 in Armour is a narcotic or like speed*
- *Desiccated thyroid is only given to patients who are "allergic to Synthroid"*
- *If the patient felt better on desiccated thyroid, it had to be due to a preservative in the medication*
- *It's made from horses*
- *Just because you feel better on cocaine doesn't mean it's good for you*
- *It's not made anymore*
- *Desiccated thyroid is unstable because of the stress of the pigs when they died*
- *Desiccated thyroid is made from pig testicles*
- *It's an inferior product made by scooping up the entrails of animals from filthy slaughterhouse floors, and all kinds of bone and germs are in it*
- *Those who use desiccated thyroid are simply a radical fringe group*

3. Bandaiding obvious hypothyroid symptoms with more medications or treatments

When patients have complained about ongoing and chronic low grade depression (a classic hypothyroid symptom) while on T4-only medications like Synthroid or Levoxyl, we've been put

on most any class of prescription anti-depressants over the years, including SSRI's (selective serotonin re-uptake inhibitors), tricyclics, and MAO-inhibitors (monoamine oxidase inhibitors), plus the newer varieties like Effexor, Remeron, Serzone, and the currently popular Wellbutrin. Or, like my own mother, we were sent to receive electric shock therapy.

When our cholesterol has risen too high due to an inadequate treatment (a classic hypothyroid symptom), we've been thrust the prescription of our doctor's favorite fermentation-derived or synthetic "statin", as well as resins, prescription Niacin, gemfibrozil or clofibrate, with all their predictable side effects.

When our hair started to fall out or our eyebrows almost disappeared on the outer edges (classic hypothyroid symptoms), we've been sent to the nearest Dermatologist, who proceeds to state we have the autoimmune condition called Alopecia Areata. We are then steered towards an over-the-counter product like Rogaine, or scalp injections of cortisone.

When we complain of anxiety, emotional swings, an inability to concentrate, foggy thinking, confusion, etc. (classic hypothyroid and/or low cortisol symptoms) we are given our doctors' favorite band-aid psychotropic medication that can contain unneeded fluoride, clash with other medications, make our hypothyroid worse (i.e. lithium), make us fat or can leave classic side effects. This doesn't even begin to cover the costs of these types of medications!

When, like me, we had reactions to activity so bizarre that they incapacitated us (classic hypothyroid symptom for some of us), we have been sent to do unusual, expensive and painful tests, or have been given unfamiliar and far-fetched diagnoses that only served to give meaning to paperwork rather than reality.

When we have complained of ongoing fatigue and poor stamina as compared to others (classic hypothyroid symptom), we've been given the spurious diagnosis of Chronic Fatigue Syndrome or even Fibromyalgia, in lieu of evidence of Lyme's Disease, Epstein Barr Virus, or other maladies.

When we complain of weight gain that doesn't correspond to our calories consumed, or a severe inability to lose weight no matter how low our calories are or how vigorous our activity is (classic hypothyroid symptoms), we are told to simply eat less, exercise more. Or like one patient, who was told that 'she has nothing more than an eating problem', and 'if she had been in a concentration camp, she wouldn't be fat'.

4. Failing to understand the connection between hypothyroid and adrenal insufficiency

The reality of adrenal fatigue accompanying hypothyroid has become clearer to patients the past few years, as have treatment strategies. And no matter how good a doctor becomes in his or her understanding of desiccated thyroid, the correct labs, and dosing by symptoms, failure will continue without understanding the low cortisol factor in such a large body of hypothyroid patients. Chapters Five and Six detail this common connection.

Accountability and change

When a dog bites my calf, I'm going to blame the dog for my pain. Accordingly, when a doctor is patronizing, disrespectful, arrogant, closed-minded, robotic and/or fails to listen to the words of his patients or observe obvious symptoms, that is on the doctor's shoulder and deserves every ounce of our condemnation and call for change.

But patients can additionally denounce the overbearing influence of the almighty pharmaceutical monster. The formulation and promotion of a vast litany of drugs with all their side effects has been both a blessing and a curse. The power of the pharmaceutical influence in both medical schools and the doctor's office is both formidable and tragic. As a result, doctors now seem to take the easy way out–take this pill or that pill. Medical intervention has come to lie in pills and ink spots rather than in clinical observation and intuition!

Additional blame can be directed towards the old-boy, big brother influence of a doctor's conservative die-hard medical board or governing body. I still shudder when I think of the

transcripts I read between a doctor who dared to prescribe desiccated thyroid and dose by symptoms, and his accusing narrow-minded licensing board.

Thyroid patients are calling for serious change in both the way hypothyroid is diagnosed and treated by the medical community. When you make published trials, professional peer pressure, or sales figures the evidence, you are no better than the undressed king who blindly made nakedness the norm.

Because we, your patients, are exclaiming The King is Naked! The TSH lab does not correlate to how we feel. Levothyroxine T4-only meds do not remove our hypothyroid! What you have been doing is not working, never did, and still doesn't. Stop the Thyroid Madness!

CHAPTER 8

The Reasons You May Be Hypothyroid

There are many proposed causes for the onset of hypothyroidism or the underactivity of your thyroid gland, some with a genetic factor and some without. Recognize your own?

Hashimoto's Thyroiditis

Also called "Hashi's" or thyroiditis, this is an autoimmune disorder in which one's immune system attacks its own thyroid cells, causing inflammation and ultimate destruction of your gland over time. It can be one of the most common reasons for your hypothyroid condition. Detected by two antibodies labs–the thyroglobulin (TG) and thyroid peroxidase (TPO)–it can often cause the development of a goiter or swelling in the neck area. Many patients report tightness when they swallow, but some have no symptoms. Patients with Hashi's can vacillate between hypo and hyper when the attack grows. There is a genetic predisposition to autoimmune disease, so if you have one, you are more at risk to have others. See Chapter 9.

Postpartum Thyroiditis

Numerous patients report that their hypothyroidism appeared after the birth of a baby, and can also be called "silent thyroiditis". Some women report they had no indication of an

attack or swings between hypo and hyper and simply developed postpartum hypothyroidism. The first signs are easy fatigue, depression or reoccurring sicknesses.

Overtreatment for Graves Hyperthyroid or Hashi's with Radioactive Iodine

Radioactive iodine (RAI) is commonly used to treat and curb hyperthyroid Graves disease, but can also be a post-surgery treatment to remove a cancerous thyroid, or in some cases to treat Hashimoto's. It results in the destruction of the thyroid gland. Hypothyroidism appears quickly in some or later in others. Other radiation to the head or neck, including for Hodgkin's disease, can cause hypothyroid.

Iodine Insufficiency

Since the atoms of thyroid hormones are composed of iodine, there's a strong connection between inadequate iodine intake and hypothyroidism, whether from a lack of iodine in our diet or soil depletion in certain geographical areas.

Selenium Deficiency

There is evidence that many global areas of soil have become depleted in their levels of the trace mineral selenium. And selenium is key for the conversion of the storage hormone T4 to the active hormone T3. Without adequate amounts, hypothyroidism can result.

Surgery to remove the thyroid

When the thyroid gland is surgically removed, called a thyroidectomy, the result will be hypothyroidism. Removal is often the result of hyperthyroidism or cancer of the thyroid gland.

Pituitary Gland Failure

When the pituitary gland fails to produce the Thyroid Stimulating Hormone (TSH), hypothyroidism can result, also called Secondary Hypothyroidism. A tumor on the pituitary

gland can be one cause, as can a traumatic head injury or disease. Disorders of the hypothalamus, which influences the pituitary, can also cause thyroid hormone deficiency.

Head or Neck Trauma

If any kind of accident caused trauma to the head or neck–even whiplash–secondary hypothyroidism can be the result, as can hypopituitarism.

Pharmaceutical Drug Induced

Lithium, used in the treatment of psychiatric disorders like bi-polar, can result in a goiter and/or hypothyroidism because it inhibits the synthesis of thyroid hormones. Epileptic medications to reduce seizures and the prescription drug Amiodarone used to treat heart arrhythmias, plus Nitroprusside, Perchlorate, and Sulfonylureas can result in hypothyroidism.

Over consumption of Goitrogenic Foods

When eaten in large quantities and consistently, this class of foods can promote goiters and hypothyroidism. They are mostly only a concern when served raw, as cooking may minimize or eliminate goitrogenic potential. Goitrogenic foods include cruciferous vegetables like cauliflower, brussel sprouts and cabbages; dark green leafy vegetables like kale; and root vegetables like turnips, radishes and rutabagas. Soy products can especially be a problem if eaten excessively. Eating in moderation is the key rather than eliminating them.

Menopause

Thyroid problems are known to surface at periods of hormonal upheaval and are more common just prior to or during menopause. Statistics state that up to 20% of menopausal women develop hypothyroid problems.

Estrogen Dominance

An excess of estrogen in the presence of low progesterone can cause thyroid hormone to be bound and unusable. This can explain why a percentage of peri-menopausal women experience symptoms of hypothyroid for the first time in their lives.

Aging

Hypothyroidism is one of the most undiagnosed results of aging and is common with the elderly. In fact, it's not uncommon to watch your elderly loved one become excessively and chronically sleepy, besides depressed and weak. A good discussion with your doctor about thyroid treatment can be helpful.

Environmental Toxin and Chemical Exposure

There is suspicion that the widespread use of fluoride in our water and food may have played a role in the epidemic rise in hypothyroid, since fluoride can interfere with thyroid function. Mercury, especially from our silver fillings, can also play a role in hypothyroidism in susceptible individuals.

Cigarette Smoking

Articles suggest that the toxins in cigarettes interfere with the proper functioning of your thyroid in a multitude of ways, resulting in either hypothyroid or hyperthyroid. Smoking also makes existing thyroid disease worse.

Hepatitis C

The American Journal of Medicine reported in 2004 that if you have chronic Hepatitis C, a blood-born virus which affects your liver, there is an increased risk of becoming hypothyroid.

Down Syndrome

Along with cardiac disease, it is common to see hypothyroidism in conjunction with Down Syndrome, especially cropping up in childhood.

Autism

Though there is controversy whether autism "causes" or is the "result of" hypothyroidism, an association between the two is common enough to rate mention in this list.

Additional proposed Causes

- Chronically high cortisol from stress, which impairs the conversion of T4 to T3
- Family genetic history of thyroid problems
- Tonsillectomy
- Accumulation of Iron in the thyroid gland (10% of those with hemochromatosis)
- Thyroid Hormone Resistance
- Any problems in the conversion of T4 to T3
- Born without a thyroid, also called Congenital Hypothyroidism
- Childhood hypothyroid, also called Cretinism

CHAPTER 9

When Your Thyroid Is Being Attacked: Hashimoto's Disease

Becoming hypothyroid due to Hashimoto's Disease may be the most common reason for the condition. Also called Hashi's or chronic thyroiditis, it's an autoimmune attack on your thyroid and the result of your immune system going haywire. The attack is against your own organs and tissue rather than bacteria and viruses. It would be akin to turning your sword on your fellow musketeers rather than on the dragons.

The progression of symptoms

How do you know you have it? At first, you may not. The early stages of Hashimotos Disease can be symptomless. As the attack progresses, the damaged cells of your thyroid become inefficient in converting iodine to thyroid hormones. Thus, your thyroid will compensate by becoming larger, also called a goiter. You can have a sore throat, or you may simply feel tightness when you swallow. In addition, you might not feel comfortable with a snug collar or turtleneck shirt.

Eventually, you will start to notice the same symptoms of hypothyroid, including poor stamina, easy fatigue, feeling cold, gaining weight, dry hair and skin, constipation, etc. As it

progresses, you may feel very hypo one day, and very hyper another, which is caused by the destruction of your thyroid. Those symptoms can include anxiety, a racing heart, and palpitations. The hyper is caused by the release of thyroid hormones into your blood due to the destruction. The hypo is caused by the lessening function of your thyroid due to the destruction.

If your doctor orders lab work, you might see variations in your results, such as being high in the free T3 or free T4 ranges one time, and low the next, or seemingly normal another time, making diagnosing and dosing by labs alone impossible.

The attack and gradual destruction of your thyroid gland can last for years, especially if you are in the hands of a doctor who does the wrong tests, or thinks its ok for your Hashi's to go untreated.

Who has it?

Three out of four individuals with Hashimoto's are women, but men are not immune. Most patients with Hashi's can have a strong family history of it or other autoimmune diseases. Others find themselves with the disease after the birth of a baby, whether they recognize the symptoms or not.

Nancy was surprised to find herself with Hashi's after she had given birth to her first child. She explains:

> *Over the first 7 months after Eric was born, I was gaining weight rather than losing my pregnancy gain, and I couldn't get past feeling sooo sleepy and blue. My mom told me I had postpartum depression, and time would probably take care of it. So I grabbed a bottle of St. Johns Wort to tide me over. A few weeks after that, I was brushing my hair and noticed my neck looked thicker in the front.*

Nancy made a quick appointment with her doctor, and she received the diagnosis to explain her symptoms: Hashimoto's Disease.

Hashi's was discovered around 1914 when a Japanese physician named Dr. Hakaru Hashimoto described a newly revealed condition in which the thyroid enlarged, called a goiter, and later atrophied. Dr. Hashimoto came from a long

line of family members who practiced medicine, and he coined the phrase "Medicine is a benevolent art". He was not recognized for his discovery until later, but we all now honor him with this disease of his name.

Lab tests

Since up to 95% of Hashimotos patients will have antibodies, it can be confirmed by two antibodies labs: **anti-TPO** and **TgAb**. The first antibody, anti-TPO, attacks an enzyme normally found in your thyroid gland, called the Thyroid Peroxidase, which is important in the production of thyroid hormones. The second antibody, TgAb, attacks the key protein in the thyroid gland, the thyroglobulin, which is essential in the production of the T4 and T3 thyroid hormones.

It is unfortunately common for a doctor to only do one test, and you need both, since you can be normal in one test and high in another! The anti-TPO can also be found in Hyperthyroid, so you want to be sure it's Hashi's you have, not hyper. We have also noted that saliva does not always accurately detect Hashi's as well as blood tests do.

Occasionally, a doctor will take the direction of non-treatment of your high antibodies, letting it run its course until it "stabilizes". That's like saying *Enjoy feeling like crap for years.* Additionally, if you let the antibodies run high, which equates to a strong autoimmune attack, you can run the risk of autoimmune disease spreading to other areas of your body.

Hashimotos Disease treatment

You treat Hashi's the same way you do just plain hypothyroid–with thyroid medications. Even on a T4-only treatment, you can have some success in stopping the attack and lowering your antibody levels. But patients who switched to Armour noticed even better results, especially if they dosed by symptoms rather than labs. If you do have Hashi's, you may have to insist to your lab-obsessed doctor to let you raise your desiccated thyroid according to the elimination of symptoms, not labs.

Why does the use of thyroid hormones stop the attack? I suspect part of it has to do with your immune system. An antibodies attack on your own tissue is, in essence, your immune system going haywire. When you give yourself the thyroid hormones that your body lacks, you then *improve* the health of your immune system, which in turn decreases the production of the crazy antibodies. Whatever the reason, thyroid patients repeatedly find that holding low doses of thyroid hormones can continue to feed the attack, whereas the higher doses finally stop the attack. That's why it can be crucial for a Hashimoto's patient to raise their thyroid medication sooner than later, inching your way up to the 3 - 5 grain area that most thyroid patients seem to need.

Some randomized placebo-controlled studies suggest that taking Selenium, an essential trace mineral, could help lower the high levels of antibodies, especially the anti-TPO. Recommended doses are 200 - 400 mg daily. But patients have learned that it's meant to be taken in addition to desiccated thyroid, not by itself as a treatment.

Some patients have noted that their antibodies were present for years even after they had countered the attack with thyroid hormones like Armour. But patients on desiccated thyroid have found that antibodies greatly fall if they dose high enough.

Pregnancy can be a strong precursor to developing Hashi's, since the increased activity of your immune system can either worsen an autoimmune disease you already have, such as thyroiditis, or cause it to appear. Other researchers suggest that menopause has the same trigger.

How is Hashitoxicosis related to Hashimotos?

You might call Hashitoxicosis the big mama of the thyroid autoimmune disorder, because you not only have the two antibodies anti-TPO and TgAb, but you also have the Graves Disease antibodies, called TSI, or Thyroid Stimulating Immunoglobulin antibody. The TSI antibody attacks the receptor for the TSH, or thyroid stimulating hormone, then mimics it, causing your thyroid to overproduce thyroid hormones.

A person with this condition has the two opposite spectrums of thyroid disease going on: Hashi's, which leads to hypothyroid, and Graves, which leads to hyperthyroid. And the swings caused by the multiple antibody attacks can be aggravating. It has been suggested that you dose according to symptoms, i.e. use Armour or T3 during the hypo phase and nothing during the hyper phase. It's difficult, nonetheless.

Hashi's and other conditions and diseases.

Since Hashi's is an autoimmune disease, patients can be at risk to have other autoimmune diseases, including Celiac disease, Pernicious Anemia, and an autoimmune attack of your adrenals. Also, literature states Hashi's can go hand-in-hand with Type 1 Diabetes in susceptible individuals.

Bacterial cause of Hashimotos

Some rare cases of Hashi's may be the result of exposure to particular pathogen (i.e. bad guy) bacteria. The *Clinical Microbiology and Infection* journal reported in 2001 that there may be a connection between bacteria called Yersinia enterocolitica and certain Hashi's. You can be exposed to these bacteria via tainted meat, unpasteurized milk, untreated contaminated water, or even from the poor hygiene of a food handler. The treatment of choice is with an antibiotic like Doxycycline. To discern if you have been exposed to these bacteria, order your own stool lab from Genova Diagnostics labs at *www.GDX.net.*

If your Hashi's is not the result of a bacterial infection, or you don't find success with the antibiotic treatment, patients believe that Hashimotos can be controlled successfully if you treat with desiccated thyroid, and raise according to the elimination of symptoms, first and foremost.

CHAPTER 10

Join The Yaya Hypohood Psychiatrist Club

Please accept my resignation.
I don't want to belong to any club that will accept me as a member.

-Groucho Marx

Never was a club membership so automatic, so vast and as dubious as one *you* might belong to right now along with millions of other women and men worldwide. And how did you acquire this cheeky membership? By being on a T4-only medication like Synthroid or Levoxyl, and/or dosed by the TSH lab result, and/or being told by well-meaning but uninformed and robotic doctors that you need

- To be on anti-depressants
- To be on anti-anxiety medications
- To be on lithium (which interferes with thyroid function)
- To see a therapist or psychiatrist
- To submit to Electric Shock Therapy, as happened to my own mother

So, because you've always been led to believe that *your doctor* knows best, you've made one of a few choices:

1. Dutifully filled your prescription and popped your anti-depressant, anti-anxiety or other psychotropic pills,

2. Visited your counselor, psychotherapist, Psychologist or Psychiatrist, or

3. Learned to live with it and coped and coped again.

And it's all been in spite of the fact there was a far better medication and treatment which would have prevented the need for most of the psychotropic pills and therapist visits in the first place. Just as easy as that.

Yet, we were never told.

So along with our physical symptoms of fatigue, poor stamina, dry skin, hair loss, easy weight gain, aches and pains, and/or feeling cold when others were warm...we as a group have had to deal with one or more mental, emotional and psychological symptoms of continuing hypothyroid due to five decades of a lame treatment or unrecognized adrenal fatigue. They include but are not limited to:

- Depression
- Anxiety
- Excessive fear
- Bi-polar mood swings
- Rage
- Ruminating thoughts
- Chronic irritability
- Paranoia
- Confusion
- Concentration problems

- Memory problems
- Obsessive/compulsive disorders
- Mental aberrations
- Brain fog

It's not uncommon for thyroid patients to exclaim that their psychological symptoms can be far more difficult and debilitating than the physical symptoms. Yup, having less stamina than your friends is one thing, but being dependent on yet another medication, or carrying the stigma of an emotional/mental disorder, is another. It's a travesty.

Susan, a vibrant chef who chose to stay home when her second child was born later in her life, had been on 150 mcg Synthroid for 3 years. She stated:

> *When I first got on Synthroid, I thought I was going to feel a lot better. My doctor regularly tested my TSH and found what he said was my blue ribbon dose. Instead, the depression I had before I got on was increasing, and I was so depressed that you couldn't pry me from the house. I didn't enjoy any activities with my husband or my little ones. Holidays were miserable for me, and if I was forced to prepare my house for company, it would take me hours to become motivated enough to do the job. I kept begging my doctor to see if there was another problem going on, and all he said was "go see a therapist." I saw two more doctors, and all I got from them were free samples of anti-depressants and prescriptions for more.*

Mark S., a college student, had symptoms which went beyond depression. He explained:

> *I can't say my life while on 0.125 Levoxyl was horrible, but I sure wasn't able to keep up with my running buddies anymore. And something else started to change: I kept having all sorts of worrisome thoughts in my head. They would start the minute I woke up and continue until I went*

to bed. I couldn't concentrate, couldn't study, and my thoughts would just roll and roll and roll until I felt like I was going mad. Felt stupid and alone.

When hypothyroid patients like Mark and Susan complain to their doctors about their symptoms, onto their doctor's favorite anti-depressant, anti-anxietal, lithium, or bi-polar med they go-beginning with the freebies on the shelf from the friendly and suited pharmaceutical rep. Sound familiar?

Point the finger at a low free T3

Your membership in the club began when your physician or psychiatrist failed to understand or consider that mental, emotional or psychological disorders can be due to inadequate levels of free T3, the most active thyroid hormone. The low level can be there *years* before the hypothyroid is detected due to your doctor's reliance on the faulty TSH lab result. Or it will be present on T4-only medications where the body is dependent on the conversion of T4-to-T3 alone, and receives no direct T3 as is received from desiccated thyroid medication.

Doctors push you into the club by failing to check thyroid function with the correct tests, the free T3 and free T4, plus the two thyroid antibodies labs. *Or, they fail to recognize the symptoms of adrenal fatigue or to prescribe the correct diagnostic tests, such as the 24 hour adrenal saliva test.*

And unfortunately, with their medications come more problems you don't want. Many anti-depressants are made up of fluorinated molecules, meaning you are getting the very toxic substance, fluoride, which may be making your thyroid condition worse. Additionally, your medications can clash with other medications, or leave you with other classic side effects, including weight gain.

Depression and hypothyroid

In my contact with thousands of thyroid patients, I have repeatedly observed that chronic low grade depression, and occasionally full blown depression, is the most common side effect of being on the inadequate thyroxine, T4-only medications. In fact, you can almost guarantee that a large body of

patients on thyroxine have been encouraged to be on, or are on, anti-depressant medications. There are some clinical studies which show that long term use of anti-depressants can raise your cortisol levels, as well.

Additionally, it doesn't take a rocket scientist to presume that a certain percentage of individuals with depressive disorders who aren't yet on thyroid medications are in fact, undiagnosed hypothyroid due to the erroneous "normal" range for the TSH lab or the failure to use the correct labs.

My own mother is a classic example of the tragedy of poor assessment or treatment of thyroid function. After she battled clinical depression and anxiety for years while on T4, she relinquished all control of her health to a doctor who gave her Electric Shock Therapy–a treatment which only slightly lessened her chronic depression and dulled her memory and intelligence for the rest of her life. She also remained on the anti-depressant Elavil for the rest of her life, along with her Synthroid: the Mutt and Jeff of thyroid treatment.

T3 and your emotional health

Dr. Ridha Arem, in his book, *The Thyroid Solution: A Mind Body Program for Beating Depression and Regaining Your Emotional and Physical Health*, states:

> *Scientists now consider thyroid hormone one of the major "players" in brain chemistry disorders. And as with any brain chemical disorder, until treated correctly, thyroid hormone imbalance has serious effects on the patient's emotions and behavior.*

Thyroid hormones thyroxine (T4, as the storage hormone) and triiodothyronine (T3, as the converted and direct active hormone) not only play a part in the health of your metabolic, endocrine, nervous and immune system, they in turn have an important role in the health and optimal functioning of your brain, including your cognitive function, mood, ability to concentrate, memory, attention span, and emotions.

On her website, Christiane Northrup, MD writes about T3 as a neurotransmitter which regulates the action of serotonin and other transmitters against excessive anxiety. She also mentions that low T3 can be implicated in depression[1].

Dr. Barry Durrant-Peatfield, in his book *Your Thyroid and How to Keep It Healthy*, explains:

> *Brain cells have more T3 receptors than any other tissues, which mean that a proper uptake of thyroid hormone is essential for the brain cells to work properly.*

Peatfield feels that up to one-half of depression is due to unrecognized hypothyroidism. This figure could be higher when you consider the high amount of thyroid patients who are suffering from depression while on the inferior treatment of T4-only medications.

One of my favorite articles, *Hypothyroidism Presented as Psychosis: Mxedema Madness Revisited* by Heinrich and Grahm, MD's, outlines the relationship between thyroid disease and psychiatric and psychologic manifestations. They emphatically state:

> *There is little doubt that thyroid hormone plays a major role in the regulation of mood, cognition and behavior. As a result, persons with thyroid function frequently experience a wide variety of neuropsychiatric sequelae. The range of physical and psychiatric presentations and their potential subtle manifestations make hypothyroidism a diagnosis that is easy to miss. Behavior changes may occur in the absence of classical physical signs and symptoms of the disorder. Pg. 265, Primary Care Companion Journal of Clinical Psychiatry 2003; 5*

The additional problem of low cortisol

Just as patients have come to understand the connection between their depression and undertreated hypothyroid, along comes a new wrinkle to be addressed in many: adrenal fatigue.

1. www.drnorthrup.com/womenshealth/healthcenter/topic_details.php?topic_id

Adrenal fatigue means you don't produce enough cortisol, which in turn results in thyroid hormones pooling in the blood and not making it to your cells. It is essential that the common combination of hypothyroid and adrenal fatigue be recognized and treated.

Nell had been on Synthroid for eight years, anti-depressants for seven, and many problems. She heard about Armour and made the switch. She explained:

> *I finally made my way up to 2 ½ grains, held it for five weeks, and found resolution of some my physical symptoms, but I still had others. When I did labs again, my free T3 was over the range, and I felt it was just normal for ME. But just as before, I was still uncomfortable with leaving my house. And my tendency to overreact to things my friends would say to me had not changed. I was calm one moment and raging the next. I also felt like my friends were ganging up on me, and I truly felt one in particular, who has always been an outspoken type of woman, meant to cause me harm. I really thought that! I then heard about low cortisol, did the adrenal self-tests, and it was obvious that they pointed to adrenal fatigue, but I still had to overcome even my fear about THAT.*

Nell is an example how low cortisol levels can be an additional culprit, even when you feel you are adequately treated for your thyroid. Her high free T3 accompanied by her psychological symptoms were also suspicious, since low cortisol results in cell receptors failing to adequately receive thyroid hormones from the blood. The emotional and behavioral symptoms from having low cortisol, which in turn keeps you hypo, can include the need to avoid leaving one's house, seeking peace and quiet, unable to tolerate stress, low tolerance to loud noises, rage, emotional ups and downs similar to bi-polar, panic, obsessive compulsive tendencies, hyper sensitive to the comments of others, phobias, delusions, suicidal ideation, and more.

What's the solution?

Patients and certain informed doctors have learned that if certain mental health symptoms become obvious, either by you or friends who notice them, it's time to find a doctor who will test your free T3. It's also prudent to add the two thyroid antibodies labs, as well as your cortisol levels at four key points during the day via the saliva test. Keep in mind that most doctors will tend to order a urine or blood test, but patients have repeatedly found the 24 hour saliva test to give the best information.

If you find your free T3 mid-range or below, or if you have an autoimmune attack going on against your thyroid (which will make labs useless since you can swing between hypo and hyper), you need to discuss the addition of Cytomel (synthetic T3) to your current thyroxine medication. There is a growing body of doctors and researchers who are using T3 as an adjunct to anti-depressive therapy, since improving your T3 levels can raise brain levels of the neurotransmitters serotonin and norepinephrine to the optimal level they need to be.

Even better, according to the experience of many, is switching to desiccated thyroid like Armour or the other brands, which gives you the entire complement your own thyroid would be giving you–T4, T3, T2, T1 and calcitonin. There are numerous testimonies of patients ridding themselves of chronic depression and other emotional problems when they dosed high enough with desiccated thyroid to put their free T3 towards the top of the range (in the presence of adequate cortisol).

If you find your free T3 at the upper end of the range, or above range, yet mental health issues persist, the missing piece in the puzzle may be the adrenals. Chapter 5 & 6 provides information patients have learned in the diagnosis and dosing of adrenal insufficiency.

Real life success stories

Joan's story: I was frequently told by my doctors over a ten year period that I needed to be on anti-depressants. I resisted because I didn't want to be like my mother, who'd been on them

for years. I finally caved in and tried two brands. One hardly touched my depression. The other worked for three months, then it caused morning depression so bad that I thought I would die. I felt doomed. One particular day, a friend told me about Armour, which her Aunt had switched to recently. Since I had been on Levoxyl for more than 10 years, I was curious. I finally found a doctor to put me on Armour, and even as low as 2 grains, I noticed that my depression was disappearing. I am now at 3 ¾ grains and my depression has totally disappeared.

Nancy's story: Well, I was once on Synthroid for 14 years. My worst times appeared right before my periods, when I would think everyone was ganging up on me. My marriage was in shambles as a result. I also had severe depression during the winter, which I believe is called Seasonal Affective Disorder. I couldn't function during the winter, and my monthly cycles caused me so many problems that I couldn't function most months. Now that I am on Armour, my life has really changed. I can think again. I feel 100% better. I don't dread my periods anymore because my emotions have leveled out. And best of all, I bleed half as much!

Lou's story: For years, I watched my older sis Deb struggle with fatigue. Her doctor finally figured it out and put her on Synthroid. Deb seemed to do better, but she still had depression, and her hair kept getting thinner and thinner. Then it was my turn! I became hypothyroid about four years after my sister. But I did some research on the internet, found out about desiccated thyroid, and got on Naturethroid. Once I got over 3 grains, I felt SO much better and could run circles around my sister. Luckily, she is looking into getting off her Synthroid and onto desiccated thyroid like me.

Judy's story: This is embarrassing, but I've always been very obsessive compulsive. There have always been certain ways I have to do things around the house, and I'm anxietal if my husband does it differently. When it thunders really loud, I feel better by reciting the alphabet over and over. I've been on Levo-

throid for 16 years, since I was 18. I have never had the energy of my friends. I heard about Janie and a group she has, and found a doctor to put me on Armour. He refused to let me go higher than 2 grains, so I found another doctor 1 ½ hours away from my house. She let me go higher. And to my shock, I am not anywhere NEAR as OCD as I've always been. I am thinking that all along, it was a thyroid symptom that the Levothroid never took away! I am so excited.

Michelle's story: I think I have been to more than 9 doctors in the past few years, and every one of them told me I needed to be on anti-depressants. It only made me cry even more, as I read so many bad stories about them. I am now on Armour, and no longer feel depressed or anxietal.

Lucille's story: I was depressed for eleven years before discovering that I had a thyroid problem–just like my mother. I had been on a variety of anti-depressants for at least 6 of those eleven years. When I was on Levoxyl and later Synthroid when I moved and changed doctors, my depression got even worse. Because my husband kept liquor in the house, I started drinking. I'm now on 4 ½ grains desiccated thyroid, and my depression has lifted! Who would have guessed. Yes, I stopped drinking and feel better than I have in a decade.

Mrs. R's story: I have always had problems with what they call suicide ideation. I wasn't actively suicidal, but I sure have been passively suicidal, thinking about it and being careless. I've been on anti-depressants off and on, too, including Elavil, which turned me into a zombie. I finally got my doc to do some blood work. He said I was hypothyroid–put me on Levothyroxine. It did NOTHING for me. NOTHING. I then joined an internet thyroid support group, heard about Armour and switched. I am actually feeling better than ever! I'm excited what more will happen to me as I raise my free T3 levels.

Steve's story: I am a student in college. Ever since I was about 13, I've had episodes of mania and depression. I could barely get along with my mother, and I spend many days living with a strict aunt and uncle. I thought weight lifting would make a difference, but it didn't. My doctor put me on Synthroid when I was a senior in high school. It didn't help at all. And when I went away to college, I had trouble keeping friends due to my mood swings, besides being dog tired and I ached. The university doctor had me raise my thyroid medication. It did nothing. I heard about Armour and started it. I had a terrible reaction to it, and through getting on the internet, found out about adrenal fatigue. I am currently on Cortef, started my Armour again, and am actually feeling like a even keeled human being again. Thank you.

Pam C's story: I have had depression for 18 years and even had to spend time in a mental hospital in Dallas. I was on Levoxyl, too. Three times during that time, when I questioned if my thyroid problem might be causing all this, all I got was "no" because my TSH was normal and I needed to see a psychiatrist and stick with my anti-depressants. When I got a computer for Christmas, I started doing research using Google and found out that a low T3 causes depression, and that Amour might stop it since it has direct T3. I was dancing, let me tell you. I promise that the first day I took it, I started to feel better. I wish I had known about this years ago. Not one doctor told me anything. Not one.

Cindy's story: I can only speak for me, but since I started on Armour three months ago, I still get depressed at times. But now, I seem to be able to pull myself out of it! The depression is also much lighter. I am looking forward to more progress.

G.R's story: I was diagnosed with hypothyroid 8 years ago and put on Synthroid. Six years ago, I was diagnosed with Body Dysmorphic Disorder and I've been on several psychotropic medications that did not help. It was my mom who told me what she had heard about Armour, so I found a doctor who

would let me get on it, then switched to a DO who would let me get higher. I am now on 5 grains, plus 27 1/2 mg Cortef (hydrocortisone). I am shocked to report that I no longer have depression or anxiety attacks, and I don't feel hideous anymore. It's a miracle really.

Listening to the success stories

Those stories above only barely touch the surface of success by those who moved from T4-only medications and dosing by the TSH...to a T3 treatment or desiccated thyroid like Armour. They also dosed not by the TSH, but by the elimination of symptoms first and foremost, using the free T3 as a guide and seeking a result at the top of the range along with health adrenals or cortisol supplementation.

So don't despair if you are a bonafide and oh-so-privileged member of the Yaya Hypohood Psychiatrist Club. You can switch your membership to an inactive status by getting on desiccated thyroid like Armour, or even at the very least, adding T3 to your T4-only medication.

CHAPTER 11

The 10 Biggies: The most common mistakes

Bloopers, blunders and miscalculations: all common when treading a new path. Patients who've walked the better path with thyroid treatment have experienced all of them. This chapter presents mistakes and solutions in the hope that you won't have to make them, too.

My own learning curve was having a doctor start me on ¾ grain Armour. Not a huge mistake, since it can be wise to have a low introductory dose so your body can adjust to the direct T3, a very powerful thyroid hormone.

But what she did next was a biggie. She left me on that ¾ grain for nine weeks before I saw her again. That was a big mistake! Due to the feedback loop, my pituitary gland thought my thyroid was now producing a bit more hormones, and via the TSH, it told my actual poorly-producing thyroid to produce even less. Thus, my hypothyroid symptoms came back with a vengeance. The first evidence was a period that lasted twice as long as usual. And oh was I tired!

1. Staying on a starting dose too long. Just like my example above, it's common for doctors to put you on a safe low starting dose, but leave you on it far too long, i.e. until the next

six-week or eight-week follow-up. The result? Your body thinks your thyroid has suddenly produced more hormones. And via the TSH from your pituitary gland, your thyroid is told to decrease its already-lowered production. So you become even more hypothyroid than you started.

We have learned that though one grain is a beneficial and safe amount to start with, especially in the presence of strong adrenals or adequate cortisol, it's not a good amount to remain on much longer than a week or two without raising by at least one-half grain. Patients continue with ½ grain raises every two weeks, slowing down as they approach three grains to give the T4 in Armour a full four to six weeks to fully build.

If you have to start as low as 30 mg, either due to your doctor's lead or because of adrenal fatigue, it's even more crucial to begin raising by the end of the first week. With adrenal fatigue, the raises may need to be in smaller amounts.

2. Not raising high enough: This is a common occurrence which can happen anywhere along the way of your Armour dosing. Patients will be on inadequately low doses due to:

a) Being held on a starting dose too long

b) Being bound by the directives of a TSH-obsessed doctor

c) Failing to get a raise of Armour until the "next lab work", which can be weeks and months away

d) Following an inaccurate Synthroid-to-Armour conversion equivalence chart, which leaves you underdosed

e) Being forced to lower a dose due to a high free T3 with continuing hypo symptoms, which is a sign of low cortisol and needs treatment. See Chapter 5 and 6.

f) Being afraid to go higher

For example, a patient makes her way up to one-to-two-grains (60 - 120 mg) and notices good improvements, yet fails to raise enough. So she will see the return of some of her hypothyroid symptoms, or find herself with old

lingering ones. Or, a patient makes his way up to two grains and notices little improvement. And it's common to think that Armour isn't working. In reality, it may simply mean a patient isn't on enough!

It's estimated that the daily average secretion of thyroid hormones in individuals without thyroid disease is 94 - 110 µg T4 and 10 - 22 µg T3[1]. Since desiccated thyroid has 38 mg of T4 and 9 mg of T3 per one grain (60 mg), the above amounts equate to about three to five grains of desiccated thyroid. And sure enough, a large body of hypothyroid patients have noticed repeatedly that their optimal dose ends up in the three to five grain range or higher before ridding themselves of symptoms, especially in light of digestive issues.

It can also be very wise to check adrenal function, since low cortisol can prevent thyroid hormones from making it to the cells. With low cortisol, you will still have symptoms in the three-to-five grain dosage range, or even be unable to reach that area due to hyper-like symptoms.

3. Thinking a dose is too high because of hyper symptoms: Granted, a patient can take too much Armour and become hyper. But if you have hyper-like symptoms on doses less than three grains, there's a strong chance you have low-functioning adrenals (i.e. not enough cortisol) rather than simply being on too much desiccated thyroid. If your cortisol levels are too low, a normal amount of desiccated thyroid for those with healthy adrenals will be too high for you until you correct the low cortisol.

So it can be wise to get your cortisol levels checked via a 24-hour adrenal saliva test, which catches your levels during at four key times in a day. If money is an issue, try the Discovery self-tests mentioned in Chapter 5.

4. Failing to multi-dose: It's a common feature of many popular medications to take a pill once a day. Those on Synthroid and Levoxyl or any T4-only medication, which is a

1. *www.thyroidmanager.org/Chapter2/2-text.htm*, (Bernard A. Rousset, PhD., and John T. Dunn, M.D., 13 April 2004)

storage hormone, do just that. Some thyroid patients who take desiccated thyroid like Armour also take it once a day, in the morning. But over time, your once-a-day strategy can backfire, leaving you with afternoon fatigue.

Since a healthy thyroid will give you thyroid hormones throughout the day, as you need it, patients have learned to replicate that natural process by multi-dosing their Armour to better distribute the direct T3 in desiccated thyroid. The direct T3 is immediate, peaking about two hours after you take it, and then beginning its fall. So dividing your dose makes sense.

For example, a person on three and one-half grains might take two grains in the morning, one grain by noon or early afternoon, and half grain by mid-afternoon. Twice a day dosing is common, such as morning and early-to-mid afternoon.

Another benefit of multi-dosing is that it's far less stressful on your adrenals, which is especially crucial if you have sluggish adrenals.

5. Swallowing thyroid with estrogen, calcium or iron: Unfortunately, when you swallow your desiccated thyroid at the same time you swallow foods or supplements which contain calcium, iron, or even estrogen, a certain amount of the direct T3 in your thyroid pill will be become bound and unusable in the mix. So patients have learned to avoid swallowing these at the same time they take their desiccated thyroid, and instead take these products three to four hours apart from their thyroid. It is acceptable to have food in your stomach, though, when you take your Armour, as long as they don't contain the above.

When avoiding calcium supplements, you have to watch out for calcium fortified orange juice, as well as taking calcium carbonate over-the-counter products like Tums or Rolaids.

Even though the particular brand Armour isn't made as a sublingual tablet, patients have discovered it to work well sublingually, i.e. placing the tablet under your tongue and forgetting about it. Why? Because nearly 100% is utilized when you do it sublingually since most of it goes directly to your bloodstream, vs. the large amount you lose when swallowing

due to stomach acids and liver processing. Some patients who switched from swallowing their pills to sublingual discovered they could take slightly less Armour than when they swallowed, and get the same great results!

6. Thinking Armour is not working when an issue arises: The brilliance of desiccated thyroid is that it contains direct T3, also called triiodothyronine. It's the most powerful of the thyroid hormones. Because of that power, it can initially aggravate certain conditions as they are exposed to the T3.

An example is my benign heart condition called Mitral Valve Prolapse. I noted that with each raise, I would have consistent palpitations from the mitral valve. But within five days, my heart would calm down and come out stronger.

Another patient got itchy when she got on Armour, and was so determined to blame Armour that she got off, got back on Synthroid...and is still itchy. We have since learned from a few patients that the itchiness went away as they continued to raise their Armour.

7. Adding T4 or T3 to Armour too soon: Most patients report they achieve excellent health, stamina and energy on Armour or other desiccated thyroid products alone, especially when they have taken the time to raise and find their optimal dose, which is usually over three grains and/or has removed all hypothyroid symptoms.

But some patients and their doctors like to add either synthetic T4 or T3 to their desiccated thyroid dose to achieve a certain result. The challenge is in not adding it too soon; otherwise you miss out on the benefits of the optimal amount of the T4, T3, T2, T1 and calcitonin found in Armour.

Instead, patients have learned that if they had simply increased their Armour dosage, they might have gotten the results they desired.

In some instances, a patient may suspect they have thyroid hormone resistance when six to seven grains of Armour is not doing the job. At this point, they add T3, called Cytomel, by prescription, to their dose to achieve results and resolution of

symptoms. Additionally, since most patients on an optimal dose of Armour often have only a mid-range T4, some are adding a small amount of T4 to raise the level. It's all an individual call.

8. Going up with dosages too fast: I remember vividly the following experience on an internet thyroid patient group: a male patient was prescribed Armour, and on his own, he raised it one grain per week, until he was up to six grains by the sixth week. Ouch. He started to find himself heavily overdosed with symptoms to match, including high anxiety and shakiness.

He had to stop for a few weeks to allow the thyroid hormones to dissipate, and then his doctor had him resume again at one grain and do it the right way. Namely, patients have learned that after being on a starting dose for about two weeks (one grain, for example), they can start raising their dosage by 1/2 grain or so every two weeks. They also note that when they get close-or-up-to the three grains, it's time to hold each dose at least four to six weeks to allow the buildup of the T4, and to see its T4-to-T3 conversion results.

9. Paying too strict attention to lab results: Unfortunately, there are decades of a disturbing and lazy pattern where doctors treat by ink spots on a piece of paper (called lab results) rather than using medical intervention based on patient clinical presentation, a.k.a. symptoms. Labs are interesting, and labs are good adjuncts to the full spectrum of dosing. But patients know firsthand that symptoms are the horse pulling the cart, not the other way around!

For example, to react to a high free T3 lab result, without noticing continuing hypothyroid symptoms, will result in overlooking a key symptom of adrenal fatigue. Or, to dictate a decrease in thyroid medications because of a below-range TSH, without noting continued hypothyroid symptoms, will back pedal a patient into hypothyroid hell.

10. Thinking your doctor knows more than you do: Granted, it's not difficult as a patient to have great respect for higher education. We can certainly appreciate the knowledge that a medical school trained doctor can potentially bring to our health quest.

But equally as important, as a thyroid patient, you enter that doctor's office with your own knowledge as well as intuitive or subjective sense about your own body. You bring first-hand experience about what works, about what doesn't work. You know how you feel in your own body, no matter what the lab result, the pharmaceutical rep, the TV commercials, or the doctor says. And you can know by your own research and intelligence about what other patients have said has worked, or has not worked.

Patients have discovered the doctor-patient relationship they want is a team, with respect going both directions. If you discover the doctor you are paying your hard-earned money to is not willing to work with you as a team, and respect your own wisdom, it's time to consider going elsewhere.

CHAPTER 12

T3 is The Star Of The Show

The man who follows the crowd will usually get no further than the crowd. The man who walks alone is likely to find himself in places no one has ever been.

-Alan Ashley-Pitt

Most legendary bands have a lead singer who draws the most attention of its fans, like Kurt Cobain of Nirvana or Brian Wilson of the Beach Boys. And when it comes to the ensemble of thyroid hormones, the one with the lead gold star on its door by thyroid patients is T3, aka triiodothyronine (try-i-oh-doh-thy-ro-neen).

T3, an iodine-based hormone, is part of a family of five well-known performing hormones produced by a healthy thyroid: T4, T3, T2, T1 and calcitonin. Together, they all work as smoothly and harmoniously as a well-tuned chorus for the optimal performance of your body. The storage hormone T4 is approximately 80 - 93% of the total thyroid production, with T3 coming in at 7 - 20%, and smaller amounts of T2, T1 and calcitonin.

T3 deserves the academy award

T3 is the most biologically active, life-giving hormone made by your thyroid, being around four to eight times more powerful than the storage hormone T4. It makes its appearance in your body two ways: first, primarily from the conversion of T4 to T3 by the removal of an iodine atom, or second, by being made endogenously, meaning directly.

T3 positively affects every cell, tissue, and organ in your body. It plays a critical role in your energy levels, stamina, immune strength, hair and skin health, brain function, metabolism and body temperature. T3 has a special role in the health of your heart as well as your emotional and mental health.

The presence of direct T3 (as compared to T3 from conversion), along with the synergistic interaction between the all the T's and calcitonin, is exactly why a large and growing body of patients are finding natural desiccated thyroid like Armour gives them far more benefit than being on a T4-only medication. At the very least, even being on a synthetic T4/T3 combination, is far sweeter than T4 alone.

T3 and the health of your heart

Studies frequently reveal the strong connection between the thyroid hormone T3 and its influence on a healthy heart rate, good blood pressure and vascular resistance–the latter which refers to your body's ability to push blood through your circulatory system. T3 plays a strong role in normalizing high cholesterol levels. Conversely, low levels of T3 can coincide with a poorly functioning heart rate, rising blood pressure, and atherosclerosis, or the hardening of your arteries. Low T3 is associated with rising cholesterol.

This strong connection between the T3 thyroid hormone and your cardiovascular health has not gone unseen by thyroid patients over the years, even if they didn't understand what they were seeing. At first, Cathy was stymied by what happened to her 68-year-old mother when she had heart surgery, but came to an important conclusion ten years later. She explained:

On my mother's side of the family, I never heard any stories about heart problems. My grandparents died from old age. And my mom's weight gain wasn't unusual to me since my grandmom had been a little overweight as the owner of a bakery. Yet when my mother was in her late 60's, and had been on Synthroid about 35 years, she had to have a balloon angioplasty. I was told it was done to open up a narrowed artery from her rising cholesterol. And it seemed really odd to me. But I figured it out a decade later when I joined a thyroid group. A lot of other thyroid patients were talking about their own high cholesterol when on those T4 pills. And others mentioned heart problems. One girl said she was in heart failure in her 40's while being on Synthroid, and it was totally different now that she was on Armour! It was like a light bulb went off in my head about my mom.

A familiar pattern is true for a large body of hypothyroid patients who are on T4-only medications like Synthroid and Levoxyl as they age: unfailing weight gain, rising cholesterol and heart issues. Even in 1976, when Dr. Broda Barnes wrote *Solved: The Riddle of Heart Attacks*, he clearly saw a strong connection between hypothyroid and heart disease. And since patients have found their hypothyroid to continue while on T4-only medications, rising cholesterol is the norm as you age, which in turn can lead to cardiovascular disease.

Conversely, those who switch to desiccated thyroid with its direct T3, and who raise not by the TSH lab result but according to the complete elimination of symptoms, report a firm lowering of their cholesterol levels and much improved cardiovascular health. Sharon tells her inspiring story:

I had been on Levothyroxine for 16 years when I heard about Armour from a thyroid support group on the internet. I was so impressed that when I went back to our family doctor to talk about my labs, I was going to insist on switching. He's an older doctor and knew about Armour. Lucky me, because he was very friendly about me being on it. This was also the appointment where I found out that my cholesterol was 305! I picked up my Armour pills that afternoon, and started the

next day. I told him how I wanted to raise it based on what I had learned from other people in my shoes, and he gave me enough until the next appointment, and asked me to report in every three weeks. When I tested my cholesterol again several months later, it was down to 198!! I did nothing different other than switching to Armour!

Sharon's story is similar to thousands of thyroid patients who make a switch to a desiccated thyroid product. And a visit to one of numerous internet thyroid patient groups attest to cardiovascular improvement in a large body of thyroid patients. To see a plethora of articles on the connection between T3 and heart health, just use your favorite search engine and type in *triiodothyronine cardiovascular*.

T3's role against depression

Feeling chronically sad? Have problems feeling excited about your life? Studies show a strong relationship between your free T3 level (free referring to the available and unbound of the total T3) and the occurrence of depression and feelings of emotional numbness; namely, the lower your free T3 levels, the higher the incidence of depression and related emotions of apathy. Conversely, the more optimal your free T3 levels, the better your emotional health.

As outlined in Chapter 10, chronic depression is quite common for those on T4-only medications where the only T3 patients get is from conversion. But when patients switch to a desiccated thyroid treatment that gives direct T3, and achieve a free T3 towards the top of the range (and in the presence of healthy or adequately-treated adrenals), you hear a multitude of subjective reports about the improvement and/or removal of the chronic depression. Patients then report a successful end to the use of anti-depressants.

Biologically, thyroid hormones, especially the active and life-giving T3, interact with brain receptors and make the brain more sensitive in favor of norepinephrine or serotonin. Norepinephrine, a neurotransmitter, plays a role in your alertness, memory and the balancing of your mood. Serotonin, another neurotransmitter, regulates mood and emotion.

According to numerous studies which report on the use of T3 in combating depression, the improvement occurred whether the patient was considered hypothyroid or not. One is left to question whether the diagnosis against hypothyroid was accurately made. The occurrence of undiagnosed hypothyroid is widespread, perpetual and odious due to the obsessive reliance on the faulty TSH and total T4 lab results. So in reality, there might be a vast percentage of clinically or chronically depressed patients who are quite hypothyroid, whether on T4-only medications or not.

With T3 added to your anti-depressant, it's proposed that the T3 accelerates the effects of the anti-depressant. Even more concisely, it may be treating the very reason for the depression in the first place–a low free T3 due to hypothyroid. There are simply numerous examples of patients whose depression completely resolved when their hypothyroid was correctly diagnosed and optimally treated with desiccated thyroid, or at the least, a synthetic T4/T3 combination.

Bottom line, the addition of T3 in the treatment of depression has a good record of being safe, practical, and inexpensive, whether taken alone or combined with T4 as in desiccated thyroid, or simply as an adjunct to anti-depressants. And it works.

In the October 2000 issue of *The Annal of Pharmacotherapy* 34 (10):1142-45, the following abstract is a good example of what occurs with many hypothyroid and depressed patients when they have a thyroid treatment that includes direct T3:

OBJECTIVE: To describe a patient with longstanding depression and hypothyroidism who had marked mood improvement only after triiodothyronine (T3) was added to her thyroxine (T4) replacement therapy.

CASE SUMMARY: A 50-year-old white woman had a long history of depression and documented hypothyroidism since 1991. Despite treatment with T4 with dosages up to 0.3 mg/d, she continued to be depressed, have symptoms of hypothyroidism, and have a persistently elevated thyroid-stimulating

hormone concentration. Addition of a low dose of T3 to her regimen resulted in significant mood improvement.

DISCUSSION: The relationship between hypothyroidism and depression is well known. It is possible that this patient's long history of depression may have been a consequence of inadequately treated hypothyroidism, due either to poor patient compliance or resistance to T4. Nevertheless, her depression responded to addition of a low dose of T3 to her regimen. This case emphasizes the importance of screening depressed patients for hypothyroidism. Her clinical course also suggests that depression related to hypothyroidism may be more responsive to a regimen that includes T3 rather than to replacement with T4 alone. This is consistent with the observation that T3 is superior to T4 as adjuvant therapy in the treatment of unipolar depression.

CONCLUSIONS: Depressed patients should be screened for hypothyroidism. In hypothyroid patients, depression may be more responsive to a replacement regimen that includes T3 rather than T4 alone. Therefore, inclusion of T3 in the treatment regimen may be warranted after adequate trial with T4 alone.

Alongside the numerous study results showing the efficacy of T3 treatment in depression, there are also several references to the successful use of T3 in the treatment of anxiety, Body Dysmorphic Disorder, Bi-polar, Obsessive Compulsive, Suicide Ideation, to name a few.

Two scenarios which might require T3-only treatment

No matter how beneficial patients have found desiccated thyroid to be in the complete reversal of hypothyroid symptoms, there can be two problems that a few patients experience, even when they have adequately treated their adrenal fatigue: thyroid hormone resistance, and chronically high levels of Reverse T3. In these cases, the use of T3 in conjunction with desiccated thyroid, or alone, is a necessary treatment.

• Thyroid Hormone Resistance

Imagine that your vehicle's gas tank has plenty of fuel, but your car is unable to make use of it. That is akin to thyroid hormone resistance, also called peripheral tissue resistance. It's a rare condition in which you don't benefit even from high levels of thyroid hormones, such as 6 - 7 grains or higher.

What causes it? It's proposed that a defect of the thyroid hormone receptors of your cells is the culprit, and/or problems in the pituitary tissue sensitivity. Using labs may not help with this condition, since you may appear to have adequate levels, yet no response.

A saliva test, rather than a blood test, will show tissues levels and can help confirm if you might have a resistance problem. But confirmation of a resistance problem may simply be the fact that you are on high doses of Armour without good relief from your hypothyroid symptoms.

If you find yourself in this predicament, you can ask your doctor to add T3. The most common brand name is Cytomel, made by King Pharmaceuticals, with the generic name of liothyronine sodium. T3 is added to your current dose of desiccated thyroid and raised until you get relief from your hypothyroid symptoms, no matter where your lab results are. Staying with the desiccated thyroid continues to give you the T4, T3, T2, T1 and calcitonin, along with the addition of T3. Some may choose to switch solely to T3, but there is benefit to receiving the full complement of what desiccated thyroid provides.

• Too high levels of Reverse T3 (RT3)

In any situation where your body needs to conserve energy, your thyroid will properly convert any excess T4 to the inactive Reverse T3. Or, when you are confronted by an excess of emotional, physical or biological stress, your adrenals will rightly respond by producing extra cortisol to help you and your body cope.

But when the cortisol production becomes too high for too long, minerals like selenium become poorly absorbed and T4's ability to convert to T3 becomes impaired. To clear out the excess T4, your thyroid will convert it to additional Reverse T3.

Additionally, if through chronic long-term stress your adrenals finally become fatigued, the end result is low cortisol. And low cortisol will cause thyroid hormones to pool in your blood rather than making it to your cells. Again, to clear out the excess T4, your thyroid will convert it to additional Reverse T3. And when your T4 converts to far too much RT3, it has some inconvenient side effects.

Picture running water heading towards a drain, but the water is also picking up a mess of twigs and branches along the way, until the drain becomes so clogged with twigs and branches that no more water can fall down the drain. This is akin to what happens when your body is making excessive RT3–it clogs up and binds the cell thyroid receptor sites, the tiny docking stations for thyroid hormones, and blocks the ability of regular active T3 to make it to your cells.

The above two scenarios with your adrenals–high cortisol or low cortisol, or a mix of both–are why it's imperative to adequately treat your adrenals. See Chapters 5 and 6.

A small percentage of thyroid patients, who are treating their adrenals to the best of their ability, continue to have symptoms which imply they are making far too much RT3. Those include the subjective experience of feeling toxic as they raise their thyroid medications, or simply having problems with raising. Or, as patients report firsthand: not quite feeling right, strange reactions, not getting benefits like others do.

If you suspect an excessive RT3 problem, ask your doctor to order a Reverse T3 test, but also include the free T3 with it. If it's difficult to find a lab facility to do both, you can use this one: *www.directlabs.com*

When you have your RT3 tested, you are not necessarily looking for a result high in the range to prove a problem. You are looking for a problem in the ratio *between the free T3 and the RT3*. For example, if your free T3 is very low, your RT3 can still be "in range", yet still be too high in relation and causing a problem. So you have to determine the ratio between the two.

When you view your lab results, you might notice that your free T3 might be measured in PG (picograms) and your RT3 result might be measured in NT (nanograms). They are each

just different units of measure, such as liters to pints. And the only way to find the ratio is to first convert one measurement to match the other.

Since there are 1,000 picograms per 1 nanogram, you would move the decimal of picograms 2 spaces to the right, or move the decimal of the nanograms 2 spaces to the left. Or in other words, 10 PG equals 0.01 NG.

When they are both in the same unit of measurement, you then divide your RT3 into your free T3. You are looking for a ratio greater than 19 if the free T3 was originally measured in pg/mL and the RT3 was in ng/mL.

For example, say your free T3 is 600 and your RT3 is 200 (though the range for RT3 is up to 350). By dividing the 200 into the 600, the ratio will be 30–ideal!! On the other side of the coin, if your free T3 was 600 and RT3 was 400, and you divided the 400 into the 600, your ratio would be 15–not ideal and reveals your body is making too much RT3.

The solution is to avoid T4, since it's only going to convert to excess RT3, and to use simply T3. Additionally, you have to dose T3-only high enough to suppress whatever activity your thyroid still has to make T4. Your thyroid still may make a little, but not enough to be a problem.

Switching to and dosing with T3-only

Once you and your doctor confirm that your levels of RT3 are too high as compared to your free T3, making a switch to a T3-only treatment can be a more beneficial treatment protocol. 25 mcg. has been the preferred starting dose by many patients and certain wise doctors, dividing it to half in the morning (12.5) and the other half about 5 hours later (12.5). There are good pill splitters at your local pharmacy.

A few days later, 12.5 mcg can be added at bedtime. Every few days, you can continue to add 12.5, such as first to the morning dose, then the afternoon dose, and so on. As long as the additions of T3 aren't causing any adrenal stress, patients have benefitted from raising every few days.

If you are already on Armour when you make this switch, you can swap out one grain of Armour for 25 mcg. of T3 every week.

CAUTION: *if your adrenals are deep into adrenal fatigue, which you have proven by the 24 hour adrenal saliva test or extreme symptoms, and you are unsure if you have reached your optimal amount of cortisol, even 25 mcg. can be too much for you. Choosing half that amount, divided into two doses, may be wiser.*

After you have risen to about 75 mcg. of T3, it can be wise to hold further raises for a week, and then only do 12.5 mcg. increases. You will be able to judge when to slow down by your temperature and pulse, i.e. if they go too high. If your mid-afternoon temp is getting close to 98.6, time to slow down and hold. Again, your goal is to dose high enough to stop your own thyroid from producing T4.

Some patients will end up taking a lot more than they will ultimately need. We have seen doctors guide their patients up to 250 mcg. daily, which is the amount needed to bombard the receptors and to clear out the excess RT3. This will then become too much, as your T3 will suddenly be able to slide into your cells. This happens about 8 - 12 weeks into your T3-only therapy. You will then need to reduce your T3 quite rapidly. Final doses usually end up between 80 & 125 mcg, with some as high as 150 mcg.

Another clue you are on enough is when you get your free T3 at the top of the range or over, especially if the lab you are using has a free T3 range that ends at 420, which from some, is too low.

Brands and kinds of T3

All T3 products are synthetic T3-only, and the names can include Cytomel, Cytomal/Ti Tre, Tertroxin, and Mexican Cynomel or simply sodium liothyronine.

Slow-release/time-released T3 is another variation, and is also recommended by Dr. Dennis Wilson, who coined the term Wilson's Syndrome to define high RT3. In our experience as patients, time-released T3 works well for some, and lousy for others. So you'll have to figure out what is right for you. Multi-dosing Cytomel has been quite successful and preferred for most.

How long to stay on T3-only

The length of time to be on T3-only is an individual call. If you have solved the cortisol problem that was causing the issue in the first place, and once you have stayed with T3 for several months, and have potentially cleared the RT3 backup, you and your doctor can consider a slow tapering of the T3. Then add back in desiccated thyroid, starting at one grain, and raising every few weeks as you drop the T3.

If the unresolved cortisol issue still remains, you may have to stay on the T3 until you resolve it. This may pertain to some patients who had an RT3 problem in the first place. i.e. they find this problem hard to fix.

Becoming educated about the role of T3 in our thyroid treatment has been a major boon in our road to better health and energy. Or as my uncle would quote, "it's the greatest thing since sliced bread".

CHAPTER 13

Important Odds And Ends Related To Being Hypothyroid

Like a cat walking gracefully along the edge of a fence, healthy bodies are always in a state of balance. The fit action of one organ can affect the stable reactions of another in a perfect equilibrium.

On the other side of the coin, when one organ becomes diseased or there are deficiencies in what our bodies need, imbalance occurs. And in hypothyroid patients, it's common to discover problems in other parts of the body that need to be addressed. These include low ferritin and iron, B-12 deficiencies, celiac or gluten intolerance, high cholesterol and iodine deficiency. I have also added a section on Radioactive Iodine treatment for Graves hyperthyroid.

Low Ferritin

Over the past few years, as thyroid patients have been changing their thyroid treatment, they have been surprised to discover that a large percentage also have low Ferritin, an iron storage protein. It's a protein found in your cells, binding to iron and storing it, then releasing it for future use. You can

have "normal" iron serum levels, yet a low storage of iron. To measure ferritin is to measure how much storage iron you have.

The cause of low ferritin is multi-faceted and related to our hypothyroid condition. First, having a lowered metabolism from hypothyroid decreases the production of hydrochloric acid in your stomach, which in turn leads to a malabsorption of iron. Continued hypothyroid also keeps your body temperature low, which causes your body to make fewer red blood cells. Additionally, in women, being hypothyroid can result in heavier periods, which causes more iron loss and less storage iron. The lower your iron levels, the faster your storage iron is used up.

Though it's most common with women, men are not immune from having low ferritin. Phil, a thyroid, adrenal and pituitary patient who specializes in men's issues, states:

> *I had a lot of problems and couldn't pinpoint what was holding me back. My testosterone levels on meds were good; my HC meds were working; my thyroid levels were better; I didn't get sick anymore in the winter.*
>
> *Still, I went to bed fatigued and got up fatigued. I had a high pulse rate over 110 bpm at rest. I was out of breath just from getting a glass of water. Sometime, I felt as if I would pass out. I had mucus stuck in my throat just at the bottom of my neck, and had to hack over and over to get it up so I could breathe.*
>
> *To be honest with you, I felt like I had congestive heart failure. Here I am on Florinef for low aldosterone levels, yet I was holding water so bad that I needed to take water pills every other day. It made no sense.*
>
> *Finally, the women on a group I belong to pushed me into testing Ferritin. My levels come back below normal. I was at 18 and the low end of the range is 29. After taking 212 mg of elemental iron from Ferrous Fumarate 324 mg my Ferritin come up to only 24 after taking this for 7 weeks.,*

Yet my breathing is so much better. I fly up and down stairs without getting out of breath. I stopped taking meds to help me breathe, as well as a med for reflux. I have dropped 22 lbs since using iron while being on the Weight Watchers program, while before, I gained on Weight Watchers. I am now getting exercise and not housebound. My feelings of depression have lessened, and hell, my sex life is better. I asked my Dr. why my iron levels are so low, and he feels it's the hypopituitary problem with so many low hormones.

The slide into low ferritin can be symptomless, but it eventually becomes the precursor to being anemic as your hemoglobin levels fall in your blood, which are the molecules in your blood which transport oxygen to your tissues. And once the latter occurs, you can then have symptoms which mimic hypothyroid-depression, achiness, easy fatigue, weakness, faster heart rate, palpitations, loss of sex drive, and/or foggy thinking, etc.

The move from low ferritin into anemia causes symptoms so similar to being hypothyroid that many patients make the wrong conclusion that their Armour is too low or not working. Excessively low Ferritin and anemia can also make it difficult to continue raising your Armour!

Biologically, insufficient iron levels may be affecting the first two of three steps of thyroid hormone formation by reducing the activity of the enzyme thyroid peroxidase, which is dependent on iron. Iron deficiency, in turn, may also alter thyroid metabolism and reduce the conversion of T4 to T3, besides modifying the binding of T3, i.e. making a certain amount of T3 unusable. Additionally, low iron levels can increase circulating concentrations of TSH (thyroid stimulating hormone).

Iron, in addition to iodine, selenium and zinc, is essential for normal thyroid hormone metabolism.

- **The solution to having low storage iron**

Once you have verified low ferritin with a blood test (i.e. lower than the 50's), your next step is to supplement your diet with iron. Iron in our foods comes in two forms: heme and

non-heme. Heme iron is better absorbed, and can include lean meats, poultry and fish. Liver has the highest concentration, but if that's on your list of "ugh", any meat will help.

Sources of non-heme iron foods, which are not absorbed quite as well as the heme meats, include spinach, almonds, baked and kidney beans, molasses, and several flour and grain products. Other sources of iron include dried fruit, peas, asparagus, leafy greens, strawberries, wheat germ, raisins and other nuts.

But most patients, under their doctor's guidance, have found it necessary to reinforce their diet with iron supplements. The most common over-the-counter inorganic iron supplements, oral or liquid, include Ferrous Sulfate, Ferrous Glutamate, Ferrous Fumarate, etc.

Ferrous Sulfate is usually the cheapest, and some patients add Vitamin E to their supplementation since Ferrous Sulfate may slightly deplete your levels of Vitamin E. It's recommended to take it with food to prevent nausea.

Ferrous Gluconate and Ferrous Fumerate may cause fewer symptoms, and both are milder on the stomach and absorb well. Ferrous Fumerate is often prescribed by doctors in a stronger form. Iron can also be administered intravenously in a hospital setting via your doctor's dictate.

Beware of liquid iron that is animal based (heme)–it can temporarily blacken your teeth, as it did to the author of this book. The use of vegetable-based (non-heme) liquid iron avoids this funny but shocking side effect.

It's recommended to take Vitamin C, which helps the absorption of iron. At the very least, drink down your iron tablets with orange juice or a drink like Emergen-C. Also taking a mineral supplement can assist the absorption, as can B-vitamins.

Hypothyroid patients have discovered it can take up to 150 - 200 mg total daily of elemental iron, split and taken with meals, to help raise their low ferritin. Elemental iron represents the iron that's absorbable in the tablet. It's important to read the labels of whichever iron supplementation you purchase to understand the amount of "elemental iron" in each tablet.

The general goal is to get your ferritin to a minimum of 70 - 90 on your lab result. It can take months to achieve this goal. And you may have to stay on iron, even if lower amounts, to maintain those levels.

- **Dealing with inconvenient side effects of iron supplementation**

Taking iron supplements can cause constipation or hard and small stools. In this case, taking a good magnesium supplement can be a wise counter, taken twice a day, until you find the amount that softens your stools. There are also prescription laxatives that can help and are safer for longer use.

Since iron can bind thyroid hormones, patients have learned to do their Armour sublingually, or under the tongue, to avoid contact with the iron. Or, if you have to swallow both, you avoid doing them at the same time.

- **When Ferritin levels are back up**

Several patients have found out the hard way that their ferritin levels can plummet all over again. So it may be wise to stick with a small dose of supplemental iron and/or eat iron rich foods, especially if you are female and still menstruating. Once into menopause, your ferritin levels may stay where they need to. Make sure you communicate with your doctor.

- **Rare conditions which can result in low Ferritin**

It's important to mention that there are some uncommon conditions that cannot be corrected by taking iron: Thalassemia and Polycythemia Vera. With Thalassemia, iron supplementation can cause an iron overload because of a missing gene in your hemoglobin. Blood transfusions can be necessary. Polycythemia Vera equates to having too many red blood cells, making your blood really thick. If your hemoglobin and hematocrit lab results are high, you'll want your doctor to check for the above conditions.

Vitamin B-12 deficiency

B-12 is an essential vitamin for the health of your red blood cells and your nervous system, as well as the creation of DNA and cell division. It's mainly found in meat, poultry and fish, plus milk products and eggs. B-12 is released in your stomach by hydrochloric acid. Yet, because hypothyroid can result in low levels of hydrochloric acid, having a low level of vitamin B-12 can go hand-in-hand with hypothyroid because of poor absorption. So it can be wise to have your B-12 levels tested, especially since the deficiency anemia is gradual, and it can be more severe than your symptoms reveal.

When symptoms finally show themselves, they can include weakness and fatigue, confusion, balance problems, bruising, and paleness, as well as shortness of breath, feeling dizzy and a rapid heart rate. Later stages can result in a tingling in your extremities, called neuropathy, or a red irritated tongue and loss of taste.

John Dommisse, MD of Tucson, AZ, in the article titled *Hidden Causes of Dementia*, feels that the "normal ranges" for B-12 deficiencies "are way too low." If that's the case, there's potentially a large body of hypothyroid patients with Vitamin B-12 deficiency.

Ranges for B-12 considered "normal" will vary from country to country. Generally, you are striving for a result at the top of the range, if not slightly higher.

Supplementing with B-12 can be helpful. Treatment from your doctor will usually involve Methylcobalamin, a pharmaceutical form of B-12 and taken by shot or lozenges.

Another more serious form of vitamin B-12 deficiency is called Pernicious anemia, which is an autoimmune disorder and can be common for patients who have Hashimotos Thyroiditis, another autoimmune problem. Just as with a normal deficiency, your body is unable to absorb the B-12 from your digestive tract. Treatment consists of the tablets or injections.

Celiac or Gluten Intolerance

Because autoimmune diseases can go hand in hand, there are a percentage of Hashimoto's patients who also have Celiac Disease (CD or just Celiac), also called Celiac Sprue or Gluten Intolerance. This attack causes atrophy damage in the small intestine, and that, in turn, results in poor absorption of nutrients in the food you eat, which can lead to malnutrition and other maladies. Some individuals can have CD less severely than others.

Conversely, those with Celiac have a higher risk of having hypothyroid (besides diabetes or rheumatoid arthritis). Estimates are that 10 - 14% of hypothyroid patients have Celiac, and it might be higher. It is proposed that if Celiac's control their disease by avoiding glutens, they can either stop a thyroid autoimmune attack, or prevent it from occurring!

Another important reason to mention Celiac in relationship to thyroid disease: when you are undertreated due to being on thyroxine, or if you are undiagnosed due to a doctor's over-reliance on the TSH range, your immune system is compromised, and that can lead to the very conditions which can trigger the autoimmune response, including oral thrush, vaginal infections or intestinal Candidiasis. These three can also develop due to an adrenal fatigue.

Stress can cause Celiac to reveal itself, and eating certain types of storage protein, aka gluten, can set off the autoimmune response. Those glutens are found in wheat, rye, barley and even oats, as well as other related grain products. The Celiac genetic tendency can also be triggered by oral thrush, vaginal infections and intestinal Candidiasis, all which contain the same protein sequence as wheat gluten. Some patients find themselves with manifestations of Celiac Disease after the birth of a baby; others after an infection or surgery.

The Celiac Sprue Association website states that up to 1 in 133 have CD, and only 3% of those have been diagnosed! Other estimates are around 1 in 2000. There is also evidence that people of Irish or Swedish descent have the highest incidence. It is much more prevalent in lighter skinned individuals than in darker skin and in Asians.

- **Symptoms of Celiac**

Symptoms of Celiac include bloating, muscle cramps, smelly gas, and diarrhea, and you can also have constipation, weight loss, anemia, chronic fatigue, weakness, or premature osteoporosis and even bone pain. You can also have projective vomiting, migraine headaches, tingling of hands or difficulty walking. If the autoimmune attack started early in one's childhood, it can result in a short stature, plus enamel problems on the teeth. Lactose intolerance can be common with many who have CD.

It is not uncommon to be misdiagnosed with irritable bowel syndrome, spastic colon, and Crohn's disease. CD also affects the central nervous system and can be similar to symptoms of Multiple Sclerosis. You will have CD your entire life, and it can wax and wane.

Three key tests to confirm the diagnosis include the anti-endomysium antibody (IgA EMA) and anti-gliadin antibody (IgA & IgG), and tissue transglutaminase (tTG IgA) or anti-reticulin. A gastroenterologist can also take a small intestine tissue biopsy, if necessary.

- **Treatment of Celiac**

The treatment of Celiac is with a total gluten-free diet, which means eliminating any food products containing wheat, rye, barley and even oats, the latter which can have traces of wheat. But you have to be careful, because even other products can have gluten, including soy sauce from your favorite Chinese food restaurant and many processed foods. Believe it or not, some cosmetics contain gluten, as well as some household cleaners. Once you eliminate gluten from your diet, give the removal of Celiac symptoms time.

There are some prescription medications you can talk to your doctor about to help control it, such as Dapsone. But you may have to start low for your body to deal with the side effects of the medication.

Joseph Murray, MD, Ph.D., who has been one of the leading US physicians in the diagnosis of Celiac disease plus Dermatitis Herpetiformis, states that the damage done to your

intestines with CD came be reversed in most cases by avoiding the gluten. The author of this book wonders if being on desiccated thyroid like Armour, which promotes a stronger immune system, can help promote that healing when gluten is avoided, as well, as compared to those who are on thyroxine or who are undiagnosed due to their doctor's over reliance on the TSH range.

- **Accompanying problems with Celiac**

Dermatitis Herpetiformis (DH) can often go hand-in-hand as a manifestation of Celiac. DH is a chronic and extremely itchy skin condition which is manifested by red bumps which can erupt into blisters, and those are mostly found on your elbows, knees, back, buttocks and even the scalp, though they can occasionally be found elsewhere on your body. Many patients with DH see it start when they are young adults. Like Celiac, it is controlled by avoiding gluten in your diet. Iodine in your diet can make it worse, according to some sources, so if you are supplementing with iodine, you might want to pay attention if it's affecting you or not.

Celiac "disease" refers to a damaged intestinal mucosa brought about by an inherited gene, and avoiding glutens can help control the disease. It is proposed that others can have sensitivity to gluten without damage to the intestines, and this could be simply called Gluten Intolerance.

High Cholesterol

Remarkably, a large percentage of hypothyroid patients, especially those who remain on the inadequate T4-only treatment, have high cholesterol, or who will see it rise later in life. And sadly, the typical approach by their doctors is to see it as a separate condition from their hypothyroid.

Cholesterol is a soft yet waxy substance that hangs out with the fats in your bloodstream and is also found in your tissue and cells. And cholesterol is the substance from which estrogen, progesterone, testosterone, DHEA and cortisol are made. So cholesterol is positively essential for your balanced health.

But with hypothyroidism, cholesterol may not be adequately metabolized, resulting in an unhealthy buildup. And you can have a higher triglyceride level and low HDL–the good cholesterol. The result is an increased risk for cardiovascular disease.

The solution is to treat your hypothyroid with desiccated thyroid and dose by the elimination of symptoms, plus seeking a high range free T3 in the presence of healthy adrenals, or adequate cortisol support. There are numerous accounts of patients on desiccated thyroid who finally saw their cholesterol fall to healthy levels thanks to an improved metabolism.

Iodine deficiency

When patients chat in thyroid groups, it's not uncommon to see them ponder why there is such an explosion of hypothyroid problems worldwide. And though there can be many causes, including fluoride in our water and repeated exposure to toxins in our environment, one possible explanation for some is low iodine.

One of the primary functions of iodine in your body is the formation of thyroid hormones. The storage hormone T4 is made up of four iodine molecules. The active hormone T3 is made up of three iodine molecules. And so on.

So there are growing questions about whether the lack of adequate iodine, both in some soils and our foods, is a culprit. For example, those living in the Great Lakes area, known as the Goiter Belt, appear to be at higher risk for thyroid problems due to low iodine. These questions are especially pertinent since researchers know that iodine plays a role in the health of your heart, brain, female hormones, immune system and so much more. There is also strong suspicion that iodine plays a role in breast health. One of my favorite books on this subject is *Breast Cancer and Iodine: How to Prevent and How to Survive Breast Cancer* by David Derry, MD.

Your greatest intake of dietary iodine comes from refined table salt. In other foods, iodine can be quite variable depending on the amount of iodized salt you use, or the feed of

the animal eaten. With the growing interest by patients in sea salt, which is usually non-iodized, the levels of dietary iodine decrease even more.

Iodine supplementation has grown in popularity, especially with thyroid patients. Stephanie A. Buist, a Doctorate of Naturopathy student whose use of iodine helped cure her thyroid cancer, states:

> *Hypothyroidism is growing at an alarming rate, and I believe one of the key components is iodine deficiency. Until the 1980's, potassium iodate was used as a dough conditioner in bakery products. But for some reason, it was removed and replaced with potassium bromate, a halide that inhibits thyroid function.*
>
> *Halides such as fluoride, chloride, bromide and mercury will block the absorption of iodine so enough iodine (higher than the RDA) must be ingested to overcome these common environmental factors. Supplementation of 6 - 50 mg of Lugol's Iodine will generally be sufficient to improve thyroid conditions. To increase the effectiveness of iodine in the treatment of thyroid conditions, Selenium, Vitamin C, Vitamin B2 (Riboflavin) and Vitamin B3 (Inositol Hexanicotinate) should also be considered.*

The most popular supplements are Iodoral in pill form or Lugols as a liquid added to your favorite juice. One drop of Lugols has approximately 6.5 mg of iodine. Recommended doses are an increase up to 50 mg. The use of iodine acts as a detoxing agent, especially with the toxin bromide, so be prepared for some side effects that eventually go away. Always stay in communication with your doctor.

Some Hashimotos patients find iodine to exacerbate their autoimmune symptoms, especially with the use of sea salt. If you have antibodies, you may want to do research on the use of iodine before proceeding.

A highly recommended website on iodine is *www.iodine4health.com*. To test your iodine levels, you need to use the Iodine Loading Test as described and offered by Dr. Guy Abraham[1]. Two recommended facilities are Hakala Research Labs at 877-238-1779 or FFP Labs 838-684-3233.

An excellent book on the subject is *Iodine: Why You Need It, Why You Can't Live Without It* (3nd Edition) by David Brownstein, MD. and can be ordered directly from his website[2].

RAI (radioactive iodine) as a treatment for Graves hyperthyroid

Radioactive iodine ablation (RAI), or I-131 taken orally, is a common treatment of Graves hyperthyroidism which has been used for many decades. Since iodine is used by the thyroid, the gland will collect radioactive iodine without knowing that it's radioactive. In turn, the thyroid becomes destroyed and the excess is secreted into your urine. Elaine Moore, an outstanding hyperthyroid patient advocate, observantly states that the thyroid gland then becomes the victim of the treatment, whereas the cause was an immune system gone awry[3].

Unfortunately, using RAI to treat hyperthyroid (and in some highly unfortunate cases, Hashimotos) will result in hypothyroid for most. But worse, there are potential long-term side-effects, and the reason you will see a strong movement by thyroid patients away from RAI. The following website lists 22 top reasons not to have RAI: *http://atomic-women.org/Top20Reasons.htm* which includes an increased risk for certain cancers, damaging the parathyroid, eye disease risk and other ongoing problems. Or, you can read a counter to these objections in the Journal of Nuclear Medicine Technology Volume 34, Number 3, 2006 143-150 and you be the judge. Patients continue to dislike it.

1. *www.breastcancerchoices.org/loading.html*
2. *www.drbrowntein.com/singleproduct.asp?id=787www.breastcancerchoices.org/loading.html*
3. *www.elaine-moore.com/gravesdisease/RAI.htm*

Alternatives to RAI include antithyroid drugs which act chemically on the thyroid gland. Propylthiouracil and methimazole (brand name Tapazole) are mostly used in the United States and Canada, whereas carbimazole is used in the UK. Surgical removal is also an alternative after the use of antithyroid medications.

CHAPTER 14

Patients have a story to tell

Even with all the ground-breaking information in this book, the most inspiring part can be the stories of others who have lived it. Here are a few which represent hundreds of thousands all across the globe, and which will turn to millions as the word gets out.

Meleese Pollock's story:

My story starts in 1994, when I not only started to feel fatigued, but also my mind, numbingly so. I had gained 23 kilos and I had never had a weight problem in my life.

And the fatigue!!! I would go to bed at night and *die* with 10 - 11 hours of sleep as if I'd been doped up. Then I would drag myself out of bed and stand in the kitchen and cry because I was too tired to get the children out of bed and ready for school. I had my three children when I was 28, 35 and 38 years old.

I finally went to the doctor who thank goodness tested my thyroid function, I had the answer! I was diagnosed with Hashi's/hypo and prescribed Oroxine (the Australian brand for synthetic T4) 100mcgs. After 3 months I was re-tested and it was increased to 150mcgs. Over the next couple of years, I had 2 further increases–first to 200mcgs, then 300mcgs–the latter

where I stayed for the next 10 years. And yet, I still had crippling fatigue. I couldn't lose the weight and had major depression.

I got on the Internet, started searching for answers and learned about Armour. I had first heard about it from a naturopath who had called it "pig thyroid". I found that here in Australia, I could get compounded capsules made up with imported thyroid USP. The compounding chemist said that I need 180 mg (3 grains) as that was equivalent to 300mcgs Oroxine.

So I started the compounded natural thyroid and within a few days felt better. I had blood tests done at around 3 months and was horrified to find that my TSH had shot up to over 6.00. So I went back on Oroxine. I simply thought Armour wasn't working for me, was doing something wrong and it was my fault.

Things continued to go downhill for me. I decided I was going to end my life if things hadn't improved. And all of this occurred while having a TSH of 0.05, a Free T3 of 5.2 with 5.3 at the upper end of the range, and a Free T4 of 19 with an upper range of 23. Perfect labs and still all the symptoms!

About 18 months ago, I decided to give the desiccated thyroid one more shot after I found out that you dose by symptoms and not to a "conversion formula". I have slowly worked my way up to what seems to be my optimal dose of 390 mg (6 and ½ grains) I cannot believe the difference! My energy levels are so much better, the brain fog/depression is going and.....drum roll.....I have lost 23 kilos! (about 50 pounds).

Armour has saved my life

Nancy Kay Adam's story:

It almost brings me to tears to write my story, but I want to contribute. I have been a runner since high school. I competed in many meets and won a lot of them. I was also good at tennis.

In college, I continued with it and also had many accomplishments. I've got a lot of ribbons and trophies in my display cabinet which I'm proud of.

When I got out of college, I got married to my sweetheart, and we immediately had Michael. And I think that's where this all began. I just didn't feel right after he was born, and I could not lose that extra poundage. 15 months later, I had Emily. And it was even worse this time. I was really tired, and had post-partum depression. And I was getting very pudgy, which bothered me greatly.

I thought I could work it off by running again, which I tried. The high school nearby had a great track I could use. But I was wrong. Each time I went, I was become more tired than ever. I just crossed it all off to being a young mother.

Fast forward 5 more years, and I had gained even more weight! I couldn't run, and my doctor kept telling me my problem was eating too much and exercising too little, since everything he tested came back normal! I was also now on an anti-depressant. But I'll tell you, I was still really depressed. And I was also starting to feel a lot of anxiety. Sure, I loved my kids and being their mom, and we were in a gorgeous house thanks to my husband's new job. But I looked horrible and felt as bad. Those were bad years in spite of all the good.

Finally, I met Janie while sitting beside each other at an outdoor violin concert. And as we got to know each other better, she gave me some information that I found quite curious. I did the reading that she told me to do, and made an appointment with a doctor about 2 hours away that she recommended.

To make a long story short, I found out I was hypothyroid all this time, that the TSH wasn't telling it at all, and that I had the beginning of adrenal fatigue. I started on Isocort, and later switched to HC. I needed to be on Armour, which I did with this new doctor after she helped me raise the HC. I had few bumps–had to tell her that I wanted to keep raising from where she thought I should stay. And now, I feel 100% better. 100% percent. I'm already weaned down my HC, and I've started running again, too. This is wonderful.

Helen Trimble's story:

After months of a rapid decline in my health, accompanied by an endless list of terrifying symptoms, the diagnosis of Hypothyroidism and ensuing prescription of Synthroid gave

me immediate psychological relief. I felt positive Synthroid would end the troublesome loss of muscle, hair and eyebrows, dry scaly skin, hoarse throat, debilitating fatigue, shortness of breath, restless legs, and incessant tingling of extremities.

It did not. I continued to regress further into a deep, dark funk and was severely depressed. I lost the ability to think clearly; needed a cane to walk; suffered from sleepless, unbearable pain-filled nights, experienced incessant loss of breath, nighttime seizures; horrific heart palpitations and continued loss of hair. Synthroid was sending me to my grave. I was literally dying and contemplated suicide. My physical and mental deterioration were just too great to bear. I was no longer terrified of death; I was now afraid of living. I realized that I was no longer good for anyone and was soon going to be another poorly treated thyroid statistic.

According to my doctor, the labs were normal. "Normal," I asked? "How can you sit there and tell me I am normal when I look and walk like this?"

She had no reply. She just shrugged her shoulders. I told my doctor that I wanted to try desiccated thyroid. She protested, but finally agreed. I was in such bad shape that a new prescription was worth a try.

Within two weeks, my deteriorating mind, body and spirit was rapidly changing for the better, and into week four, I was able to walk without the aid of a cane and the muscle pain and cramping was gone. I began to sleep soundly, the shortness of breath and heart palpitations stopped, and I developed wonderful tufts of new hair growth on my scalp along with the reappearance of long lost eyebrows. Throughout the day, I had renewed energy and the brain fog was a thing of the past.

Further blood test showed I was anemic, and I started ferritin supplementation and supplementation and B12 shots. In a few months, the fatigue disappeared.

Switching from Synthroid to Armour saved me from suicide and a life of disability. Armour stopped the thyroid madness I was experiencing and brought balance back to my life. Today, I am working full time, completing my Master's degree from the University of Phoenix, and living life to the fullest.

Valerie Taylor's story:

I can remember as a 4 - 6 year old the enemas from being constipated for a week at a time. Honestly that is one of my earliest memories. Then, at puberty, which arrived with horrid clotting and pain, I thinned out from a chubby young girl to a straggly teenager that never weighed over 98 pounds. Periods were total hell every month, sometimes for 10 days to 2 weeks & never regular. They tried BC pills, which did nothing but make me nauseous and feel PG. Then at 19 I went from this too-thin overactive-and-depressed teenager to a 160 blimp in 3 months.

Diagnosis: Hashimoto's Thyroiditis. This first doctor was wonderful and a DO who treated with Armour Thyroid by symptoms! In 8 months I was up to 3 grains a day and lost the weight and felt wonderful.

Three years later this doctor died, and I went to my first endocrinologist. He told me Armour was obsolete and here's this new med, Synthroid, that was so much better. My life of HELL began. I never felt good on Synthroid, and told him so. I went to more doctors when he told me there was nothing wrong. I dieted, I took speed, and I starved to try to control the ups and downs in my weight. Over the years I got the habit of keeping 4 sizes of clothing in my closet for the uncontrollable weight gains that happened and the starvation diets to pull it back off.

At 27 I had Pelvic Inflammatory Disease from the long term undiagnosed and untreated endometriosis, directly caused by the poor thyroid treatment I had been on for the last 5 years. Six months after that surgery, the cysts came back in spite of the complete hysterectomy. Taken off all sex hormones for 6 months of total HELL and then told I was a healthy young woman to stop complaining.

Fast forward to 39 years old. I had had low blood pressure and pulse for many years. It was not uncommon to get clocked at 95/55 at the doctor's office with pulse of 58, which they pronounced me wonderfully healthy with Athlete's pulse while I weighed in at 200 + pounds and fell asleep standing up. I

begged for Armour Thyroid & was told it was not being made any longer, and this was just an eating problem and my thyroid (TSH) was fine.

Then some stress happened in my life–an evil boyfriend, a breakup and I found myself with horrible high blood pressure, high cholesterol and weighing 265 pounds. I started having upper respiratory infections, bronchitis several times then I started to get pneumonia. I was patched up with pills, pills and more pills. I took four kinds of BP meds, cholesterol lowering meds, pain med for the horrid joint pains, and steroids for the lung issues which were getting worse. Fluid retention then became such a problem. I was given compression pantyhose to wear for 6 hot summer months.

Then the worst started. If I laid down to sleep, I got instant pneumonia and could not breathe. I was diagnosed with congestive heart failure and given 2 years (tops) to live. I was 41 years old.

Having always been a computer buff, I searched the web for Armour Thyroid. I had this nagging thought for so many years if I could just get back on that wonderful med, it would help me. I finally found a site overseas where I could order it without a prescription. I stopped seeing the four specialists that had sopped up my savings, my health and my spirit and left me for dead.

I read about taking sea salt (yes I had been on a no salt diet for 3 years per my doctors instructions) to help relieve fluid retention and I took a real leap of faith and with BP of 245/148. I started my Armour Thyroid and sea salt. In two months my pneumonia bouts stopped. In 6 months my BP was 180/95 and I started weaning off the BP meds.

Fast forward another 10 years. I have chronic high cortisol from the years of stress my body went through from low thyroid while taking Synthroid and Levoxyl. This high cortisol has caused me to have diabetes, but the CHF is cured. My high BP is gone and I take no more BP meds.

I have had to switch to Cytomel, a T3-only med to undo the thyroid resistance from years on a high dose of T4-only meds that almost killed me. My health is far from perfect, but I am alive 11 years after I was told I would die. No thanks to ANY

doctor but to my own research and the Internet and the wonderful friends I have made along the way. Now I run my own pet grooming business and help others on the Internet that are being mistreated for THEIR thyroid and adrenal madness when they cannot get help from their doctors. Update: I am now returning to Armour as I feel I have cleared out my Reverse T3 problem.

Kerry Bergus' story:

About the time I started in to puberty, my mother, who was an RN, began to think I had hypothyroid problems, in spite of always having "normal" results when an endocrinologist would check my thyroid levels. My periods were so heavy and painful that I had to stay home from school a few days each month and live on codeine.

I was finally put on birth control pills. My breasts grew huge, from a B cup to a D cup almost overnight. My periods were no longer painful or heavy, but I began to have great anxiety with no reason. I gained some weight in spite of being active with drum corps and other activities. After high school, I went off the birth control pills and began to have horrible sebaceous acne. I also put on weight and the painful heavy periods returned.

In my late teens and into my twentieth year, chronic tonsillitis and sinus infections resulted in the removal of my tonsils when I was 21. I was depressed and considered suicide seriously once. Thankfully my mother saved me from myself. From that point on, I struggled with major anxiety and bouts of depression with thoughts of suicide from time to time.

In my late twenties I married and began my journey in to motherhood. After my first child was born I lost the baby weight within six weeks and was happily in my pre-pregnancy jeans. Within six months I was pregnant again, but this time, the weight didn't come off after the second birth. My muscle tone deteriorated, my hair fell out and I felt tired most of the time. My dry and flaky skin resembled a snake and the anxiety increased.

When we wanted a third child a couple of years later, we struggled with fertility. When I finally got pregnant, it was difficult. My weight climbed, though my eating didn't change. I was very sick with diarrhea throughout, my hair fell out and I ended up with high blood pressure. Post delivery, my weight didn't drop despite eating less, my hair continued to fall out and my blood pressure stayed high. I ended up having an endometrial ablation to stop the hemorrhage type bleeding with each period.

As the years went by, my weight climbed, hair stayed thin and my marriage deteriorated. When I became a single mom, I was diagnosed with low thyroid and my OB-Gyn put me on Synthroid. I noticed no difference in the way I felt, even with increases. He would check my TSH, and then declare I was fine. An endocrinologist then declared that I had Hashimoto's autoimmune thyroiditis. By this time my cholesterol was 217 and I felt lousy.

I knew that I needed something more and so began searching the internet, where I found a natural thyroid hormone group. I finally found a group that knew exactly what I was going through. The women were so supportive and insightful that it was like receiving a cup of cold water on a hot day. I finally went to my doctor and asked her to change me from Synthroid to Armour Thyroid. She had never heard of Armour, but agreed to write me a prescription.

As I made my way up to 3 grains, we saw dramatic changes in my cholesterol, down from 217 to 139. My skin became so soft and supple that I hardly ever use lotion anymore. No more acne breakouts and a reduction in blood pressure medication. All of this was due to my change from Synthroid to Armour. My life has improved so much and my energy has returned. The anxiety that I lived with for over thirty years has completely resolved. I thought I would have to live with it forever and Armour has given me my life back.

T.F.'s story:

For years, my wife told me I'm a typical man, because I refused to go to the doctor. But when my problems finally added up and even affected my work (I own a golfing store), I went. I

was finally tired of being tired and out of breath. And my wife wasn't too turned on by my girth. Turns out that I had a bad back (which I obviously knew), and I'm hypo. So the doc put me on Levoxyl. I think it kinda helped, but it didn't either. I was still tired and my back hurt.

About two years later, my wife, who is an internet buff, told me about Armour. I said okay and talked to my doc. He's actually my neighbor and my wife had to prod him. But I finally got switched. It definitely has made a difference. I've also found out that my iron levels weren't too swift, so am working on that, too. I'm impressed. You don't hear about men much with hypothyroid, but I did, and I've met a few others now who have it. Armour has really worked. My back has even improved because I can use our treadmill in the basement now.

Cathy's story:

We had severe and ongoing stress starting in 1985 with the death of my father and the theft of my husband's machines and tools for his livelihood. It continued with his also getting a severe hernia and having surgery. Continuing on, we had problems with our oldest two children, affecting our youngest child in a negative way. Then our house burned down and we found we were $100,000 under-insured. Our stress levels soared as the problems with the neighborhood druggies more and more affected our older two children. This went on for a number of years until they left home.

My Chiro told me I was adrenally-challenged in the early part of this century, around 2000 - 2001, but I didn't have a clue as to what that meant so I pretty much ignored what he said. But I was steadily getting sicker and more hypo and the docs would only give me Synthroid. I did some online research and discovered Armour, but couldn't find a doc to prescribe it.

I was ill and desperate in 2005 - 2006 and found the Yahoo thyroid groups and finally found support. I initially started Armour and then read that adrenal problems can compound hypo problems, so discontinued Armour and got some Isocort with my Chiro's blessing. I also started Iodoral (iodine) around then also, figuring that with my long history from childhood of

hypo symptoms that were undiagnosed that I was most probably also iodine deficient.

After I worked my way up to 3 - 4 or so Isocort per day, I added the Armour back in and gradually increased the Isocort up to 8 - 10 per day, and also increasing the Armour in conjunction with the Isocort until I was at 6.75 grains. I should mention that once I got to 8 - 10 Isocort per day, I switched to HC at around 25 mg daily.

I did better than I did on synthcrap, but something was still missing, so I investigated Reverse T3 and figured that with all the severe stress, and I do mean severe and ongoing, that RT3 was probably an issue. I did not have money for independent testing, so I put myself on a temporary trial of T3, which I am still on, trying to clear the receptors. Once I run out of T3, I will have been on it for approximately 3 - 4 months or so, at which time I will be switching back to Armour by swapping it out, and may keep a little T3 in the mix, depending on how things go. During this whole time my need for HC stayed steady for several months.

Gradually it seemed the amount of HC I was taking was too much as I would feel some hyper symptoms, so I reduced the dosage to 22.5 and held steady for several months. Once again it seemed like too much, so I pared it down to 17.5 mg daily and was there for a few months. During this time of reducing the dosage I was forgetting doses here and there, with no ill effects, which told me my need for HC was reduced. I gradually reduced until I was at 10 mg daily, then 5 mg and then none.

I have stress dosed for the asthma attacks and resulting bronchitis 2 - 3 times because I felt shaky, but that is all, and I haven't stress dosed now for several days and am fine, so I conclude my need for HC on a daily and regular basis is now past. I am vigilant, however, and will stress dose if I need to as I fully realize my adrenal state is most probably still somewhat fragile; the shakiness during the illness told me that, and as I still have a good supply of HC I will follow my symptoms like I have and stress dose when needed; I do NOT want to go the way of AF ever again if I can help it.

Addendum A

Ingredients For Desiccated Thyroid Products

The following list of desiccated thyroid brands is in no particular order. The thyroid powder used in these prescription products comes from porcine thyroids which have been frozen, minced, dried and milled into a fine powder. Several batches are probably combined to create a lot of the full strength porcine thyroid powder. Testing is then done to make sure it meets the established specifications. It is obtained from pigs that can be used for food for humans. It meets the USP (United States Pharmacopeia) microbial requirements for the absence of Salmonella and Escherichia coli. According to older literature, when it's dried, it must have a limit loss of no more than 6% of weight. It also must meet inorganic testing and must yield not less than 90% and more than 110% of the labeled amounts of T4 and T3. The labeled amounts must be within 10% (plus or minus) of 38 mcg. T4 and 9 mcg. T3 for each grain of the labeled content of thyroid (60 or 65 mg according to the manufactured product). To read more detail, see the 1995 USP 23 NF 18, pp. 2684-2685 & 1997 USPDI-Volume III- 17th Edition, p. IV/518. There may be newer guidelines.

1. Armour is made by Forest Pharmaceuticals[1]. It is made in the following strengths: 1/4, 1/2, 1, 2, 3, 4 and 5 grain tablets. One grain (60 mg) contains 38 mcg. of T4 and 9 mcg. of T3, plus unmeasured amounts of T2, T1 and calcitonin. The latter (T2, T1, calcitonin) are not removed, as is sometimes rumored. Tablets are not formulated for sublingual administration, but patients have found them excellent for the sublingual method. They do not taste as they smell. Each tablet contains:

1. *www.armourthyroid.com*

- Porcine Thyroid Powder, U.S. Pharmacopeia approved
- Dextrose (sugar for taste & allows you to do it sublingually)
- Microcrystalline Cellulose (fiber base derivative from paper)
- Sodium
- Calcium Stearate (stabilizer and lubricant)
- Opadry White (Titanium dioxide, but also contains trace amounts of PEG (polyethylene glycol), Polysorbate 80, and Hydroxypropyl Methycellulose. See below.)

2. Nature-Throid and Westhroid are distributed by RLC Labs[1], Inc. (formerly called Western Research Labs). Westhroid used to contain cornstarch as the filler, but is now made with the Microcrystalline Cellulose with identical ingredients as Naturethroid. One grain equals 65 mg Naturethroid is micro-coated, easy to swallow with a reduced odor. Patients are unable to take these brands sublingually. Naturethroid and Westhroid do not contain corn, peanut, rice, gluten, soy, yeast, egg, fish/shellfish, artificial flavors or artificial colors.

Ingredients listed are:

- Porcine Thyroid Powder, U.S. Pharmacopeia
- Microcrystalline Cellulose
- Dicalcium Phosphate
- Colloidal Silicon Dioxide
- Sodium Starch Glycolate
- Magnesium Stearate
- Hydroxypropyl Methylcellulose
- Stearic Acid
- Carnauba Wax
- Polyethylene Glycol
- Lactose Monohydrate (part of thyroid USP)

1. *www.wrlonline.com/*

(See RLC Labs explanation of ingredients below)

**Hormonally, Armour and Westhroid and Naturethroid are absolutely identical–their Thyroid powder meets the same USP guidelines. Patients are pleased with all of them. Armour has fewer ingredients than both Westhroid or Naturethroid. For the latter two, microcrystalline Cellulose is technically what makes a product hypoallergenic, but if you have a severe allergy to corn, Dextrose aka Glucose may be a derivative of cornstarch and is in Armour.

3. **Thyroid-S** is from Sriprasit Pharma Co., Ltd. in Thailand (sister company of Sriprasit Dispensary R.O.P.) Advertising states that Sriprasit Pharma is a leading importer of pharmaceutical products, and has been a GMP and ISO 9002-certified manufacturer of pharmaceutical products. Patients report they are quite pleased with this product. The ingredients, according to Pongsak Songpaisan of Sriprasit are:

- Thyroid extract USP
- Lactose (a milk sugar)
- PVP K90 (Polyvinylpyrolidone; water soluble coating; no known hazard)
- Avicel (microcrystalline cellulose; holds product together)
- Aerosil (silicic acid powder; help disperse the ingredients)
- Sodium starch glycolate (helps dissolute/disintegrate the pill)
- Magnesium stearate (filling agent)
- Eudragit (a common sustain released coating)
- Methocel (a water soluble cellulose ether-helps bind pill)
- Talcum (a filler)
- Ponceau 4r lake (red additive-aluminum)
- Tartrazine lake (yellow additive-aluminum)
- Brilliant blue FCF lake (blue additive-aluminum)

- Sunset yellow FCF (yellow additive)
- Titanium dioxide (white)
- PEG 6000 (water soluble polymer; binder)
- Dimethicone solution

4. Canada's "Thyroid", formerly by Pfizer and now by Erfa[1], contains:

- Dried Thyroid
- Magnesium Stearate
- Cornstarch
- Talc
- Sugar

Patients report they are pleased with the product.

5. Generic Natural Thyroid (which includes one called Qualitest) by Time Caps Labs contain:

- Thyroid Powder
- Microcrystalline cellulose
- Dicalcium phosphate
- Colloidal silicon dioxide
- Sodium starch glycolate
- Steric acid
- Magnesium stearate
- Hydroxypropyl methylcellulose
- and "other ingredients" (which we do not know).

The generic thyroid above is often made in 65 mg tablets (as compared to 60 mg of the brand names). They are coated. For some reason, they may be less effective than the name brands, say some users, so you have to take more. Another generic maker is called URL, or United Research Labs, which is a sister company to Mutual Pharmaceutical. As of 8-07, it's reported by a patient that Qualitest now has the same smell as

1. *www.erfa-sa.com/thyroid_en.htm*

Armour, which is different than the lack of smell it had before. At the time of this writing, there is rumor that generic thyroid may be discontinued.

6. Nutri-Meds Porcine, a non-prescription brand of natural thyroid, contains:

- Whole Desiccated Thyroid Glandular Concentrate-Porcine
- Raw Porcine Thyroid Tissue 130 mg
- Dicalcium Phosphate
- Magnesium Sterate (Natural Tableting Agent)

Patients report that over-the-counter thyroid products, including Nutri-meds, are far weaker than all the above, so you may have to use more. Yes, they may be good in a pinch for help. They also make a bovine source. There may be other equivalent over-the-counter brands to Nutri-Meds.

Ingredient Explanations[1]:

Nature-Throid™ Inactive Ingredient Disclosure

Carnauba Wax - Derived from the pores of the leaves of the Brazilian wax palm tree. It is utilized in the final stage in tablet coating (to provide a complete seal).

Colloidal Silicon Dioxide - Derived from a mined ore. It is typically utilized as a natural desiccant in a tablet (to provide barrier from moisture and humidity).

Dicalcium Phosphate - Derived from a mined ore. It is typically utilized as a binder in a tablet (to hold all the ingredients during compression).

Hypromellose (Hydroxypropyl Methylcellulose) - Derived from a plant cellulose base (typically cotton blend and or wood pulp). It is typically utilized as a granulating agent in a tablet (to provide bulk and density to the tablet for proper compression) as well as part of a clear coating solution (with PEG).

1. *www.nature-throid.com/inactive.asp*

Lactose Monohydrate* - Derived typically from a dairy source. This ingredient is NOT added as a separate ingredient during formulation. It is a diluent base contributed from Thyroid USP powder (per USP monograph).

Magnesium Stearate - Derived from a vegetable source (typically palm oil). It is typically utilized as a lubricating agent in a tablet (to aid in proper compression of the tablet).

Microcrystalline Cellulose - Synthetically derived fiber base (similar to plant-derived). It is typically utilized as a filler in a tablet (to provide volume and bulk).

Polyethylene Glycol (PEG) - Synthetically derived. It is utilized with Hydroxypropyl Methylcellulose as part of the clear coating solution.

Sodium Starch Glycolate - Synthetically derived starch molecule (similar to potato starch). It is typically utilized as a disintegrating agent in a tablet (to aid in proper disintegration of the tablet in the stomach).

Stearic Acid - Derived from a vegetable source (typically palm oil). It is typically utilized as a binder in a tablet (to hold all the ingredients during compression).

Addendum B

Vegetarian or Religious Restrictions on the use of pork

There are two main reasons why someone might be concerned about the fact that prescription desiccated thyroid is from pigs: *vegetarianism and religious practices.*

The practice of Vegetarianism involves a strong belief in abstaining from the consumption of meat, fish, and poultry, which definitely includes pig aka pork products. The choice to be a Vegetarian is born from a variety of reasons: the quest for better health, religious beliefs, or political concerns about the treatment of animals.

Religious restrictions on the consumption of pork in specific are found in the Jewish and Muslim religions, as well as certain Christian Orthodox practices.

In these cases, the alternative to desiccated pig thyroid can be found in the use of adding Synthetic T3 to Synthetic T4. T3 products have the brand names of Cytomel, Cytomal/Ti Tre, Tertroxin, and Mexican Cynomel or simply sodium liothyronine. Or, there is one pill with both T4 and T3, called Thyrolar by Forest Pharmaceuticals. Your doctor can prescribe any of the above. Though patients who take this route report that it didn't give them the excellent results that desiccated thyroid like Armour gives, it's the next best step from T4 alone.

Another alternative is the use of an over-the-counter bovine desiccated thyroid. Nutri-meds *www.nutri-meds.com* is a popular choice for a bovine thyroid, and there are others you can explore on the internet or by visiting your local health food store. Over-the-counter bovine or porcine desiccated thyroid products are quite weak, so you will have to take much more than prescription porcine desiccated thyroid.

Another alternative is to consider the stance taken by Serene Shick. Serene is a vegan and Messianic. She found herself with many symptoms of hypothyroid, and did a great deal of research. She concluded that Armour was her treatment of choice, in spite of her vegan choice:

> *All the evidence points to this being the superior medication for this illness, although most docs want to give the synthetics. Armour is all natural, which appeals to me in spite of the fact that it is derived from pigs. As you know, being vegan and Messianic, this doesn't sit well, but I have come to believe that what makes my body/brain/temple perform optimally takes precedence over the desire to exclude all animal products from my diet as well as the mitzvah against pork. It is a very tiny amount and I am already feeling incredibly better: my thinking is clearer, I feel more in control of my emotions, and I am actually having frequent moments of real joy! So I am certain that YHVH has led me to this discovery*[1].

As far as Judaism, the use of desiccated pig thyroid may be more tolerated if the tablet is swallowed rather than done sublingually, which may not violate Dietary Laws. Additionally, since the use of desiccated thyroid involves saving a life and mind, it may not be a problem.

1. *www.supernaturalself.com/Hypothyroid.htm*

Addendum C

Lab work Definitions and Explanations

TSH:

Abbreviation for Thyroid Stimulating Hormone. Unfortunately, the TSH lab test has been the darling of the medical establishment for potential diagnosis for thyroid disease. It's considered a reliable gage of your thyroid function as well as accurate guide to determine the right dose of thyroid medications by medical professionals. It's considered a measurement of your own internal TSH which is secreted by your Pituitary gland to stimulate your thyroid gland.

The standard normal range was 0.5 to 5.0, with hyperthyroid occurring below 0.5, and hypothyroid occurring above 5.0. In 2003, the American Association of Clinical Endocrinologists recommended that the new range be 0.3 to 3.04. To this day, some facilities still use the old range. The range is established by the screening of a group of volunteers who are considered Euthyroid i.e. without thyroid disease.

Criticism: Patients have repeatedly found the TSH lab result to lag behind for years, even in the presence of obvious hypothyroid symptoms, before the result goes above the range to reveal hypothyroidism. Additionally, once on an optimal amount of desiccated thyroid, patients find their TSH lab result far below range, yet they have not one iota of hyperthyroid symptoms.

Benefits: The one area where the TSH is helpful is in the diagnosis of a Pituitary dysfunction, especially Hypopituitarism. If the TSH is low, in conjunction with a low free T3 or free T4, and especially in the presence of hypothyroid symptoms, it's a clue that your pituitary is not functioning correctly.

Free T3:

Free represents what is unbound from protein and available for use. T3 (Triiodothyronine) is the active thyroid hormone. If not on medication, a high level would represent hyperthyroidism, and a low level would represent hypothyroidism.

On desiccated thyroid medication, the free T3 is at the top upper end of the normal range, and sometimes over, at the same time that all symptoms are removed (in the presence of strong adrenals or adequate cortisol). With low cortisol, the free T3 will be in the upper part of the range in the presence of continuing hypothyroid symptoms.

Patients and certain doctors wisely recommend the use of this test for additional information.

Free T4:

Free represents what is unbound from protein and available for use. T4 (Thyroxine) is the storage thyroid hormone meant to convert to the active hormone T3, as needed. If not on medication, a high level would represent hyperthyroidism, and a low level would represent hypothyroidism.

On desiccated thyroid medication, many patients find their free T4 is approximately mid-range (sometimes higher) along with a free T3 at the top of the range, at the same time that all symptoms are removed.

Patients and certain doctors wisely recommend the use of this test for additional information.

T3:

Without a *free* in front, this is the Total T3, or the total amount of both usable and non-usable circulating thyroid hormone. Patients and certain doctors find this test useless, since there is no idea what part of the result represents what is available for use.

T4:

Without a *free* in front, this is the Total T4, or the total amount of both usable and non-usable circulating thyroid storage hormone. Patients and certain doctors find this test useless, since there is no idea what part of the result represents what is available for use.

Reverse T3 (RT3):

A measure of the inactive form of T3. The storage hormone T4 converts to reverse T3 normally when under stress, but some conditions like high cortisol produce excessive amounts. It's recommended that the free T3 is done at the same time as the Reverse T3 to compare the ratios. See Chapter 12.

TPO/Anti-TPO or Antithyroid Peroxidase Antibodies:

A measure of the antibodies which attack your thyroid peroxidase, an enzyme that plays a part in the production of thyroid hormones and T4 to T3. Helps diagnose Hashimoto's disease along with the TgAb lab test below. TPO antibodies can also be found with Graves's disease, though in lower amounts.

TgAb/Thyroglobulin Antibodies:

A measure of the antibodies which attack the key protein in the thyroid gland–the thyroglobulin–essential in the production of the T4 and T3 thyroid hormones. Along with the Anti-TPO, helps diagnose Hashimoto's disease.

Some patients find that they can be normal in one antibodies test and not in another, so both TPO and TgAb are recommended to diagnose Hashimoto's disease.

T3 Resin Uptake/T3RU:

A test that measures the level of thyroid hormone-binding proteins in the blood. Can be used to diagnose hyperthyroidism along with other tests.

Patients and certain doctors find this test unnecessary when hypothyroidism is suspected and is a general waste of your money.

Free Thyroxine Index (FTI or T7):

Along with the T4 and T3 Uptake, this test tells you how much thyroid hormone is free and unbound. It has been replaced by the free T4 test.

Patients and certain doctors find this test unnecessary when hypothyroidism is suspected and is a general waste of your money.

TRH:

Abbreviation for *TSH Releasing Hormone*. In your body, the TRH is released by the hypothalamus in order to tell the pituitary to release TSH. This test will see if the TSH goes up enough after the administration of the TRH. If your TSH goes up too far after the TRH is administered, it implies you may be hypothyroid. If you already have too much thyroid hormone, the administered TRH will not cause a rise in the TSH, making the test sensitive in detecting early hyperthyroidism.

This test is also used for cancer patients to see if they are on enough medication, or too ascertain the functioning of your pituitary gland.

This test is not used much anymore, since clinicians feel the TSH test alone replaces it.

TSI:

Abbreviation for Thyroid Stimulating Immunoglobins which will implicate Graves hyperthyroid as well as Graves ophthalmopathy or pretibial myxedema (bugged eyes). Rather than destroying tissue, the TSI antibodies react with your TSH receptors, causing them to tell your thyroid to produce far more.

Some Hashimotos patients can also have elevated TSI without having Graves.

Thyroid Scan or Radioactive Iodine Uptake:

This test is usually ordered by your doctor if there is an enlargement of your thyroid. It will produce a picture to help evaluate lumps or inflammation.

There are two types: one simply a scan to produce the picture, and the other is a *Radioactive Iodine Uptake*, which measures the absorption in your thyroid after you are given a dose of radioactive iodine in pill form. The amount of iodine detected in your thyroid will correspond to the amount of hormone your thyroid is producing.

Scans help identify whether nodules are hot or cold (determining possible cancer). Hot nodules are not usually cancerous.

Criticism: some patients have felt like the use of the scan was overkill when it was simply obvious they had Hashimotos disease, which is treated with adequate doses of desiccated thyroid.

Ultrasound:

This is a test which uses sound waves in a high frequency to produce an image of your thyroid gland and possible nodules. It will tell your doctor if nodules found are solid or fluid filled and their size. It does not ascertain cancer.

Criticism: some patients have felt like the use of the ultrasound was overkill when it was simply obvious they had Hashimotos disease, which is treated with adequate doses of desiccated thyroid.

Thyroid Needle Biopsy:

This test involves putting a very fine needle through your skin and into your thyroid to obtain a sample of your tissue, and to tell whether a cold nodule is from cancer or is benign. It's thought to be safe, easy and an effective method to know whether you have cancer or not.

Addendum D

Lab Facilities Without A Prescription

The beauty of most of these facilities is that you can use the test kits right in your own home. Most don't require a prescription. The results can be shared with your doctor for further analysis, and I strongly recommended that you read Chapters 5 and 6 to be knowledgeable yourself. I have included notes after each facility. Note: if you are in California, the state health law requires a written order from your health care professional before you can use these services. In New York, state health law prohibits both the testing of specimens collected in or mailed from New York as well as the transmission of data from the laboratory to you.

Note: *When it comes to saliva testing, patients have found the sex hormone profiles (estrogen, progesterone, and testosterone) to be confusing for saliva results. They can especially be skewed for females on topical creams. We also do not trust saliva results for thyroid antibodies, as when blood work showed they were there, saliva didn't for some. For cortisol, it seems to correspond well if the saliva samples were sent with overnight delivery. See above if you are in New York or California.*

Note: *Always use the more expensive overnight delivery via your post office. Long deliveries can result in degradation of your saliva sample and results which do not correspond to your symptoms.*

1. **ZRT Laboratories:** *www.zrtlab.com* If you are a patient, click on Consumer, then Saliva. Hormone Profile III (HPIII) offers sex hormones plus the four cortisol profiles. The Adrenal Function test is just for your four testing times, plus DHEA-recommended.

Contact info: 8605 SW Creekside Pl. Beaverton, OR 97008 1-866-600-1636 or you can email them at *info@artlab.com*

2. **Vitamin Research Products:** *www.vrp.com/* An impressive company focusing on anti-aging products. It also has many different kinds of saliva test kits, from simply cortisol 4x a day with DHEA to individual tests for each sex hormone, or iodine, or DHEA, plus more.

   Contact info: 4610 Arrowhead Drive; Carson City, NV 89706; (800) 877-2447 or (775) 884-8210 or you can email them *customerservice@vrp.com*

3. **Canary Club:** *www.canaryclub.org* This is not a lab facility, but a website that allows you to access saliva testing from either ZRT or Diagnos-Tech with special pricing. You have to register as a member. The **Baseline Panel** has all four saliva cortisol tests, but also includes sex hormones and thyroid.

   Contact Info: 400 W. 3rd. St. Santa Rosa, California, 95401 1-641-715-3800 #869964k or you can email them: *info@canaryclub.org.*

4. **Genova Diagnostics:** *www.gdx.net/home* Formerly the Great Smokes Diagnostic Laboratory. Look for their Adrenal Cortex Stress Profile for saliva testing, or many other tests you can choose from.

   Contact Info: 63 Zillicoa St. Asheville, NC 28801; 838-253-0621 *rRodney@GDX.net* Genova is also available for Canadians here: 800 522 4762, plus has distributors in many other countries.

Note: *the "normal range" goes so low that you won't look abnormal with Genova, even though with ZRT and Diagnos, you will be below ranges. Patients have found this very confusing about Genova's lab results. Notes on other two above also apply here.*

United Kingdom:

1. **NP Tech Clinical Laboratory:** *www.nptech.co.uk* They will send out the kit for an ASI (adrenal stress test), plus sex hormones and a full thyroid panel etc.

   Contact info: NPTech Services Ltd; Wellington House; Wellington Street; Newmarket Suffolk CB8 8SX Tel: 01638 665350 or you can contact them at *info@nptech.co.uk*

2. **Red Apple Clinic, Ltd:** *www.redappleclinic.co.uk* Saliva Thyroid panel and Adrenal Stress Test and Insulin Panel

   Contact info: 26 Summerhill, Newport, South Wales, NP19 8FP or you can email at *sales@redappleclinic.co.uk*

3. **Genova Diagnostics:** *www.iwdl.net/tests.htm* See #4 above.

Australia:

Analytical Reference Laboratories (ARL) or PathLab: You can't order the saliva kits yourself, unfortunately, but can convince your doctor. Just ring either of these labs and ask what doctor in your area uses their kits. ARL: 568 St Kilda Road Melbourne,Victoria, Australia, 3004; (61-3) 9529-2922; fax (61-3) 9529-7277 *info@arlaus.com.au.* or PathLab: 68 Burwood Highway, Burwood, Victoria 3125, (61-3) 8831-3000; Fax (61-3) 9808 2247; (Nutritional Laboratory Services), Ed Sorich Integrative Medicine Dept; *www.pathlab.com.au*

Blood work without a prescription:

Healthcheck USA: *www.healthcheckusa.com* This is a lab where you can call in and order your own blood serum labs, then go to one of several walk-in locations. This is a direct-to-consumer medical testing service, affiliated

with testing laboratories in small towns and major cities in all 50 states.

Contact info: 8700 Crownhill Rd., Suite 110; San Antonio, TX 78209; 800-929-2044 or email them at: *customerservice@healthcheckusa.com*

Note: *go to the website and check for locations of their facilities here: www.healthcheckusa.com/locations/asp*

Lab to test your Reverse T3 (plus more):

Direct Laboratory Services, Inc: *www.directlabs.com/* No doctors orders needed. They also do an Adrenal Stress, Plus and thyroid. Remember that if you are just using them for a Reverse T3, you'll want a Free T3 done at the same time to compare the ratios as outlined in Chapter 12.

Contact info: P.O. Box 601; Mandeville, LA 70470-0601; 800-908-0000 or email them at *contact@directlabs.com*

Places to order an Iodine Loading test:

1. **Hakala Research Labs:** at 877-238-1779 or
2. **FFP Labs:** 838-684-3233 or 877-900-5556

Addendum E

How To Find A Good Doctor

A needle in the haystack can best describe how hard it is for patients to find a good doctor for knowledgeable thyroid and adrenal care. There is hardly a patient alive who hasn't encountered doctors who make some or all of the following mistakes:

- Ordering lab tests that are lousy in detecting hypothyroidism, such as the TSH and total T4
- Viewing lab tests and their ranges as from God Almighty
- Prescribing only T4-only medications, such as Synthroid or Levoxyl
- Being completely ignorant about the efficacy of desiccated thyroid like Armour
- Having poor knowledge about adrenal fatigue or how to treat it
- Dismissing your own wisdom about the body you live in
- Putting you on other medications which end up bandaiding poor thyroid treatment
- Sending you to other doctors as if the answer to your continued problems is mysterious or in need of a "specialist" like an Endocrinologist

But if you work hard and do your homework, you can succeed in finding one who will do most of it, if not all, correctly, as outlined in Chapter 3: What Thyroid Patients Have Learned: the Bible of our Experience. Or, at the very least, you can find a doctor who is open-mined to what you have learned from this book and the experiences of hundreds of thousands of thyroid patients.

A good doctor is one who will willingly prescribe desiccated thyroid; will test the free T3 and free T4 plus both antibodies; will dose you by symptoms first and foremost, with labs as simply adjuncts for more information; will pay attention to symptoms of adrenal fatigue and treat it adequately before raising your Armour; and a doctor who will allow the relationship to be a team–his knowledge combined with your own. So how do you find a good doc? Here are a variety of ways to choose from, and they are in no particular order.

1. If you are on an **insurance plan** with doctors you have to stick with, send each of them a letter based on the Dear Doctor letter on the following pages. Kerry, a thyroid patient who used just such a letter, found one doctor she was excited about.

2. If you are not on any insurance plan, or just want to try another alternative, use the same letter and send it each doctor listed in your **yellow pages**. Don't stop with just those nearby. Extend your letters to those that are up to 2 hours away, because they may be the only ones worth seeing in some situations.

3. Use the **Top Thyroid Doctors** list here: from Mary Shomon's thyroid site[1]. But be careful. Any doctor can get on this list simply because the patient liked him or her. Read the summaries, and look for ones who prescribe Armour, first and foremost, and who appear to listen to symptoms. Then call and ask "Does this doctor happily prescribe Armour? Does this doctor make symptoms more important than labs?" etc. If there is any hesitation or qualifications to answer yes, run.

4. Try the locate-a-doc function on the **Armour website** by Forest Laboratories[2], where you can type in your zip code and find a physician who states they prescribe Armour. But be cautious: though you will find some good doctors this way, that are a few who put their names here, but patients report they were problematic, such as one doctor whose name is on the list, yet he stated to a patient "I am Armour-friendly, not

1. www.thyroid-info.com/topdrs
2. www.armourthyroid.com/con_phLocator.aspx

Armour-ecstatic." Others may be willing to prescribe, but be ignorant about how to do it. No matter who you find on this list, call ahead with the same type questions in #3 above. And walk into that office knowledgeable by reading Chapter 3.

5. Believe it or not, you can approach the **Pharmacist** (not the employees, but the Pharmacist) at a large pharmacy and ask what doctor tends to prescribe Armour. Most pharmacists are friendly and will let you know. Don't hesitate to go to more than one pharmacy. And do this strategy in person.

6. Those doctors who use **Compounding Pharmacies** may also be open-minded or knowledgeable about the use of desiccated thyroid. See if there is a Compounding Pharmacy listed in your yellow pages, or use your favorite search engine on your computer and type in Compounding Pharmacy. Then ask the pharmacist as in #5 above.

7. **The American College for the Advancement for Medicine**[1] may have doctors with a good knowledge of Armour.

8. **Broda Barnes doctors** understand the importance of using desiccated thyroid in treatment: *info@BrodaBarnes.org* Downside: you will have to pay a fee for this information.

9. An **Osteopath** may be more open-minded than other branches of doctors[2].

10. Join **thyroid patients groups** on the internet and ask. Yahoo groups has several.

11. The **older the doctor**, the more likely he or she is to remember the successful use of desiccated thyroid.

IMPORTANT: no doctor is going to be perfect. Medical school/licensing boards/pharmaceutical reps/continuing education make them imperfect. So no matter how wonderful a doc looks, you have to be your own best advocate by being knowledgeable when you walk in. Be friendly

1. *www.acam.org/dr_search/index.php*
2. *www.academyofosteopathy.org/findphys.cfm*

yet firm about what is right for you. Stop giving your power away when you enter the doctor's office. It's your body and your wisdom, too.

. DEAR DOCTOR TEMPLATE LETTER (to be used when finding a new doctor)

Dear Dr. _____,

Hello. I am looking for a doctor who will allow me to be an active participant in my health care, and see us as a team–his or her knowledge, plus my own. I have knowledge about thyroid treatment in specific, plus information on low cortisol issues and treatment. Additionally, I live in my own body and understand how it feels better than anyone else.

Namely, I would like to have treatment for my thyroid in the following manner:

1) the use of desiccated thyroid like Armour to treat my hypothyroid

2) dosing by symptom elimination, not labs

3) when labs are used, the free T3 and free T4. No TSH. Both antibodies to rule out Hashimotos, if necessary. Ferritin, other tests I'm aware of, plus other labs as recommended by you for good health evaluation.

4) the use of Hydrocortisone to treat my low cortisol, is necessary, and the use of specific methods I have learned about to know if I'm on a physiologic dose adequate for me.

If you feel comfortable with all the above, you and I are the right fit. My contact information is below, and I can also call you.

Sincerely,

2. DEAR DOCTOR TEMPLATE LETTER (to be used for your existing physician if you feel there is hope continuing to use him or her)

Dear _____,

I have learned that T4-only thyroxine medications, like the _____ (put your T4 medication here) I am on, became a popular treatment for hypothyroid around the 1960's. I also found out that by the early 70's, the TSH lab was being used, with a range that has repeatedly shrunk to detect more cases of hypothyroid. It all sounds medically advanced and good.

But...I am observing, as are a large body of thyroid patients, that T4-only medications like Synthroid, Levoxyl, Levothyroxine, etc. are NOT completely removing our symptoms. Neither are our symptoms removed when we are kept within the TSH range.

Since I have been on _____, I continue to have the following hypothyroid symptoms: (see Chapter 1 for the list of symptoms that match your own.) I know that you can recommend that I increase my _____, or that I take other prescription medications to *help* my other symptoms. I also know that you can recommend that I add Cytomel to my regimen.

But Dr. _____, I would prefer to go on a medication called Armour desiccated thyroid that is FDA approved, meets the stringent guidelines of the U.S. Pharmacopeia, and that patients were successfully taking before T4-only medications were ever widely used. Armour gives me exactly what my own thyroid gives me–T4, T3, T2, T1 and calcitonin. That makes a lot of sense to me.

I have heard that some doctors will say that Armour is unregulated, inconsistent, unreliable, or outdated. But apparently, patients I know who are on Armour are not

continued

finding any of those to be true! They state that they feel MUCH better on Armour than on T4-only medications.
When I start on Armour, it is my understanding that one grain or so is a safe starting amount. After 1 - 2 weeks on my starting dose, I would like to raise my dose approx. 1/2 grain every few weeks according to the elimination of symptoms, and NOT by the TSH range, since the TSH is simply a pituitary hormone, and thus doesn't accurately measure my thyroid levels with the addition of oral thyroid hormones. Once I get up to approx. 3 grains, I'd like to hold each dose about 4 - 6 weeks to allow the T4 to build in my system, and get more accurate symptom & lab results.

As far as labs, I'd prefer to keep track of my free T3 and free T4. Patients on Armour are stating that when they completely rid themselves of symptoms, they have a free T3 towards the top of the range, a mid-range free T4, and a suppressed TSH, with no hyper symptoms whatsoever. (When I do labs, I will NOT be taking my Armour ahead of time to give a more accurate reflection of my T3 levels.) I will also be splitting my Armour in two or more doses a day to spread the direct T3 out during the day.

Also, I'd like to test my adrenals with a 24-hour adrenal saliva test rather than a blood or urine test–the former which tests my cortisol at 4 important times during a 24 hour period. I'd also like to do a Ferritin test, since low Ferritin (below the 40's) appears to be common and causes problems as I try to raise my Armour.

Finally, I am hoping that you and I can be a team since I live in my own body and can have my own knowledge. If you can work with me on the above, I think we can make a fine team.

Sincerely,

ADDENDUM F

Interpreting Your Cortisol Saliva Lab Results

The following information was brilliantly created and compiled by Bob Harvey, a thyroid, adrenal and hypopituitary patient. It is his hope that you will gain better understanding about your saliva cortisol lab work and the stages of your adrenal fatigue as you work closely with your doctor.

* * *

Dr. Lam says on this website: The best way to test your adrenal health is to measure your level of free key adrenal hormones such as cortisol and DHEA. Saliva testing is preferred as it measures the amount of free and circulating hormones instead of the binded hormone commonly measured in blood test[1].

The first lab to test cortisol levels in the saliva was DiagnosTechs[2]. Their web site has a list of doctors that use the lab, and if you have trouble finding a Doctor near you, the lab kit can be ordered directly by the patient [3].

Unlike a single blood draw in the morning, the Diagnos-Tech lab result shows the amount of cortisol at 4 points of the day. The main things you are looking for in your cortisol labs are:

1. The quantity of Cortisol, high or low.
2. The rhythm. You want it to be as normal as possible.

1. *www.drlam.com/A3R_brief_in_doc_format/adrenal_fatigue.cfm*
2. *www.diagnostechs.com/*
3. *http://thecanaryclub.org/content/view/196/52/*

In the first figure the cortisol is a bit higher than normal. Doctor Hans Selye theorized that elevated cortisol is the body's initial reaction to stress.

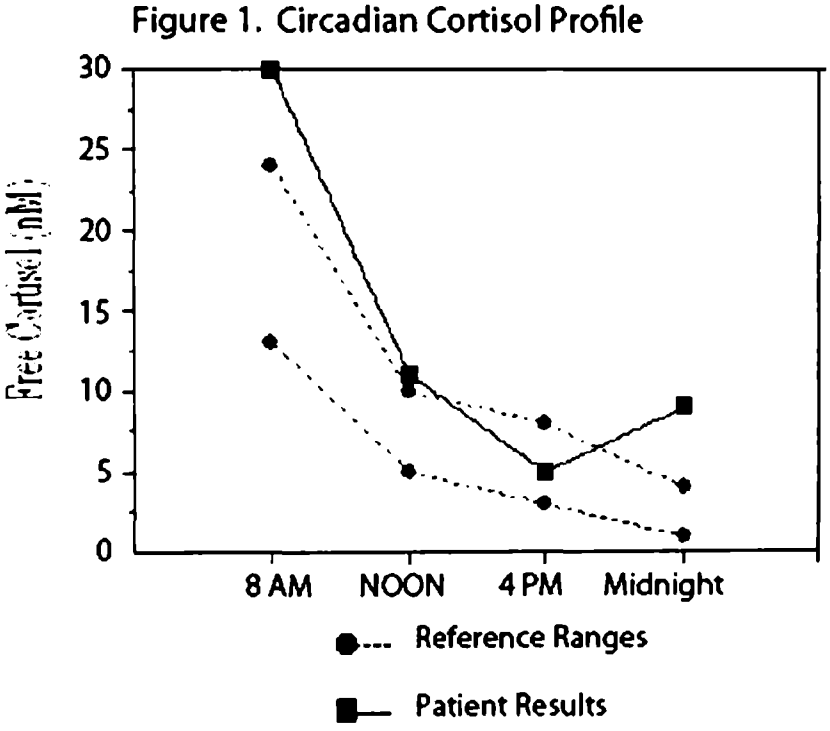

Figure -1.

The solid black line shows that this person's cortisol is higher than normal at the beginning and end of the day. The lab will print out the cortisol amounts from the 4 points in the day, compared to the normal range.

Free Cortisol Rhythm			
07:00 - 08:00 AM	31	Elevated	13-24 nM
11:00 - Noon	11	Elevated	5-10 nM
04:00 - 05:00 PM	5	Normal	3-8 nM
11:00 - Midnight	9	Elevated	1-4 nM
Cortisol Burden:	56		23 - 42

Figure -2.

Do you see the term "cortisol burden"? (*See* Figure -2). This is the combined amounts of all 4 of the cortisol samples taken through the day. This person's value of "56" is higher than the normal range (23 - 42).

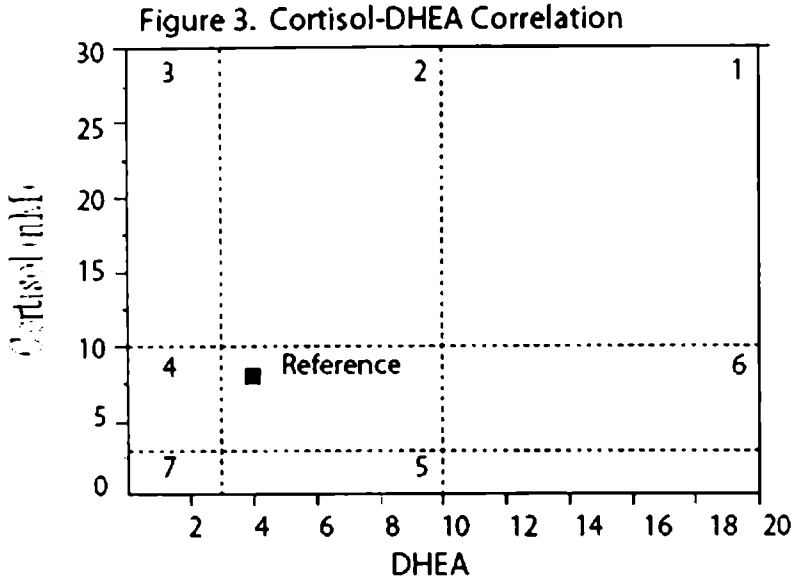

Figure -3.

This does not necessarily mean that this person will have lots of energy–many people with high cortisol describe symptoms of fatigue, anxiety, and insomnia (similar to low cortisol symptoms). High cortisol can impair the conversion of T4 (the "storage form" of thyroid hormone) into T3 (the "active form" of thyroid hormone).

DiagnosTech labs have a grid showing numbers 1 - 7. This person's result is in the "normal" zone despite the high cortisol in the morning and night because this grid takes the readings from the noon and afternoon points of the day, and averages them to get a single value to put on this chart.

Do you see how the average of the noon and 4 pm cortisol amounts would place the black square in the "normal zone" above? It is a bit higher than normal, but still fits within the range.

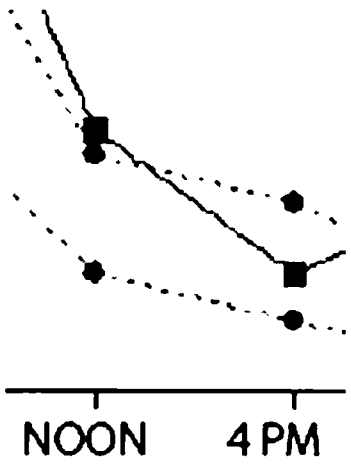

Figure -4.

That is the most "stable" part of the day in terms of the cortisol rhythm, and that is also when they gather the DHEA reading. The lab's explanation below says the correlation of cortisol to DHEA was in the (normal) reference zone, but there could still be high or low cortisol at specific points in the day.

DHEA Dehydroepiandrosterone
Pooled Value 4 Normal Adults (M/F): 3-10 ng/ml

Figure 3 shows your cortisol-DHEA correlation was in:
Reference zone
Individuals in this zone usually display a balance in the average values of cortisol to DHEA for the day.

Falling in the reference zone does not preclude the occurrence of high or low cortisol at any specific time on their circadian.

Figure -5.

Looking at the big picture, this person has high cortisol, and the rhythm is not normal.

* * *

OK, let's look at another example where the person has high cortisol.

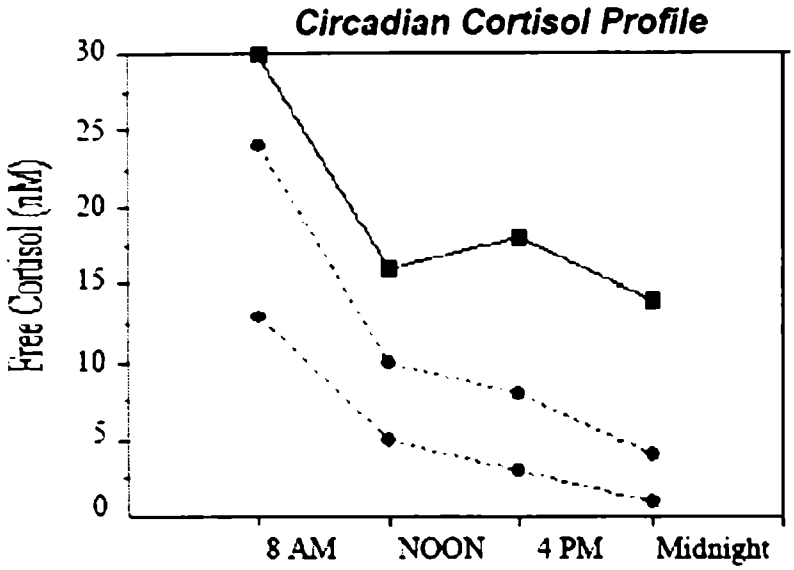

Figure -6.

The combined cortisol throughout the day is 87, compared to a normal range of (23 - 42). This person's cortisol is DOUBLE the highest range of normal.

07:00 - 08:00 AM	39	Elevated	13-24 nM
11:00 - Noon	16	Elevated	5-10 nM
04:00 - 05:00 PM	18	Elevated	3-8 nM
11:00 - Midnight	14	Elevated	1-4 nM
Cortisol Burden:	87		***23 - 42***
DHEA Dehydroepiandrosterone	8	Normal	Adults (M/F): 3-10

Figure -7.

This person's DHEA is a bit higher than center of normal, and if you look at the grid below, you will see that the black square is to the right of center, but still within the normal zone.

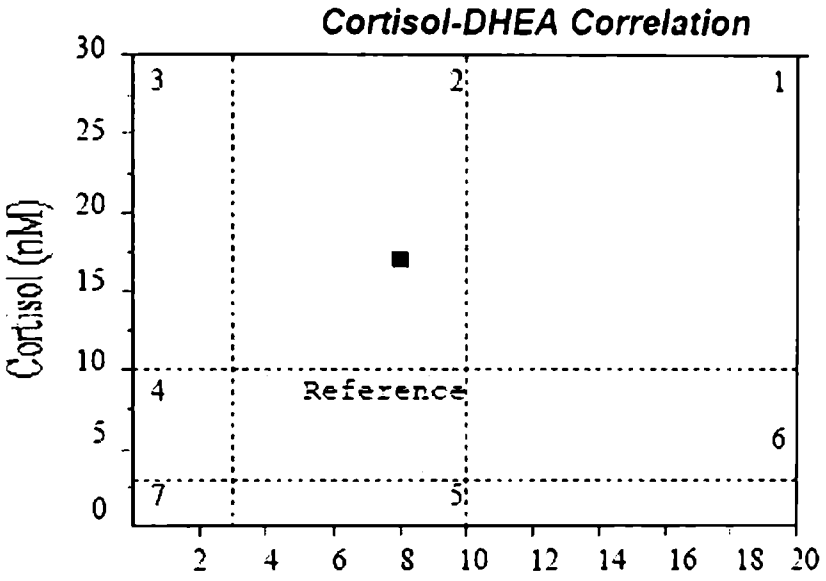

Figure -8.

If you were to average the noon and 4 pm cortisol amounts, you can see how the black square ends up higher than normal.

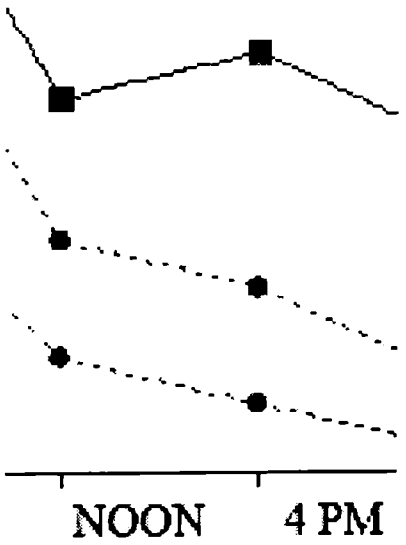

Figure -9.

Diagnostechs has determined that the Cortisol to DHEA correlation is "Zone 2", that is where the black square is placed. If you look at the explanation below, this means "Adapted with DHEA slump". What does this mean?

If this person's DHEA lab result was higher, the little black square would be in "Zone 1", can you see that? The explanation for Zone 1 "adapted to stress" means that the body is responding to the challenge. Healthy adrenals react to stress by putting out more cortisol, and the DHEA levels will increase in a similar way.In the example above, "Adapted with DHEA slump", the person's cortisol has adapted to the stress but the DHEA is not maintaining the higher output. If the DHEA was below normal, the black square would be in Zone 3.

The theory of the adrenals reaction to stress is explained on a web site by Dr. Lam[1] beginning with the "Alarm" phase–increased cortisol as a reaction to stress.

KEY: CORTISOL-DHEA CORRELATION

1. Adapted to stress.
2. Adapted with DHEA slump.
3. Maladapted Phase I.
4. Maladapted Phase II.
5. Non-adapted, Low Reserves.
6. High DHEA.
7. Adrenal Fatigue.

Figure -10.

Dr. Lam's site has a good explanation of how the adrenal hormones Cortisol and DHEA both come from Pregnenolone. During times of stress, the body requires more cortisol, and if this demand continues, more of the Pregnenolone will go toward cortisol–and less DHEA will be made.

1. *www.drlam.com/A3R_brief_in_doc_format/adrenal_fatigue.cfm*

Now, please look at the DiagnosTech grid of "7 Zones" once more. Can you visualize how the person is making plenty of DHEA at 1?–then drops down at 2 and 3? The person still has high cortisol, but the DHEA levels are dropping.

As the adrenal fatigue progresses, Dr. Lam's site refers to the "Resistance" phase. He says "While the morning, noon, or afternoon cortisol levels are often low, the nighttime cortisol level is usually normal." This DiagnosTech lab is an example where the morning cortisol has dropped down.

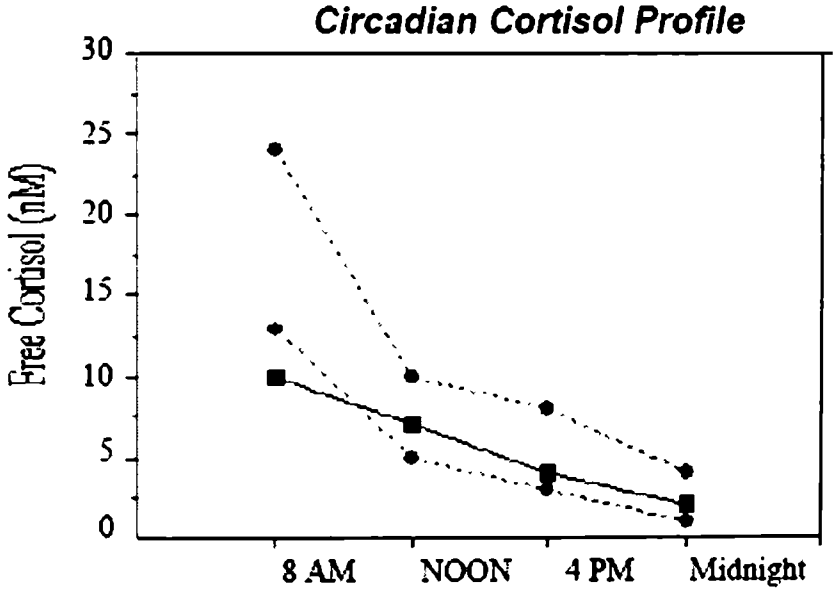

Figure -11.

We really don't know if this person's adrenal fatigue was caused by stress, but it would fit Dr. Lam's explanation "With chronic or severe stress, the adrenals eventually are unable to keep up with the body's demand for cortisol. As such, the cortisol output will start to decline from a high back to a normal level, while the ACTH remains high. With protracted ACTH and adrenal fatigue, less cortisol is produced due to the adrenal becoming exhausted."

ACTH is an abbreviation for Adrenocorticotropic hormone, produced by the pituitary gland, which stimulates the adrenal glands to produce cortisone. An early morning blood test for

ACTH levels would provide a more complete picture for this person. If the ACTH is high, yet cortisol is low, the problem is with the adrenals. But if the lab revealed low ACTH, the person could have some degree of hypo-pituitary.

07:00 - 08:00 AM	10	Depressed	13-24 nM
11:00 - Noon	7	Normal	5-10 nM
04:00 - 05:00 PM	4	Normal	3-8 nM
11:00 - Midnight	2	Normal	1-4 nM
Cortisol Burden:	23		*23 - 42*
DHEA Dehydroepiandrosterone	2	Depressed DHEA	Adults (M/F): 3-10

Figure -12.

As you read the complete Dr. Lam article, he explains that in this phase of adrenal fatigue the DHEA levels continue to drop, and this person would be an example of that. The lab result of "2" falls out of the normal DHEA range (3 - 10). Do you see how that has placed the little black square over to the left side of normal?

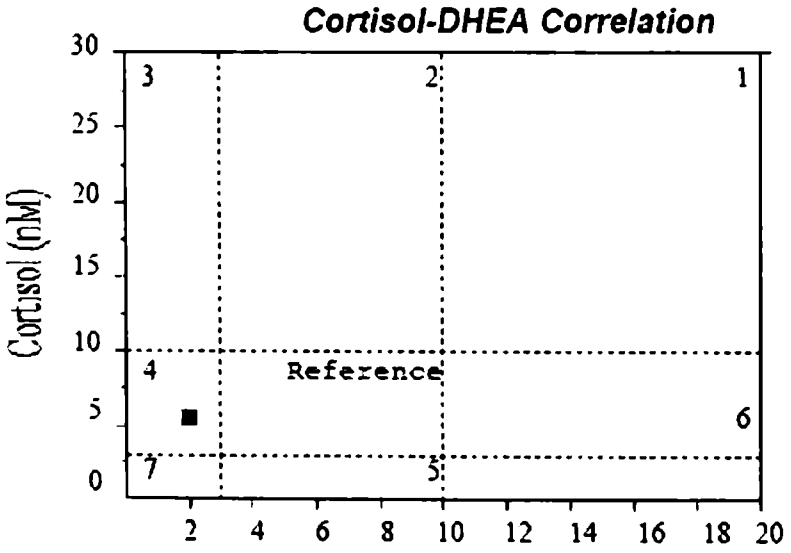

Figure -13.

As the person's DHEA gets lower, the black square moves to the left.

Why is this person's cortisol in the normal range? Remember, DiagnosTechs uses the average of the mid-day readings to determine where the black square will go.

This lab happens to be from a relative who had symptoms of adrenal fatigue, especially waking up tired, craving coffee and sweets, and feeling best only after 6 pm[1].

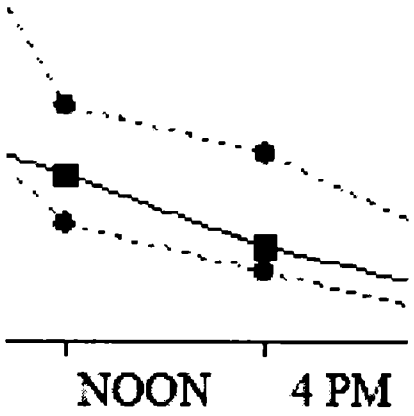

Figure -14.

At first glance, his labs don't look that bad. His cortisol burden is 23 compared to range (23 - 42). But the symptoms are important in deciding what to do. And remember what Dr. Lam says "adrenal hormones are low in the case of adrenal fatigue, but still within the "normal" range and not low enough to warrant the diagnosis of Addison's disease by regular blood tests. In fact, your adrenal hormones can be half of the optimum level and still be labeled "normal". Such "normal" level of adrenal hormones does not mean that the patient is free from adrenal fatigue. Conventional doctors are not taught the significance of sub-clinical adrenal fatigue. They are misguided by blood tests which are not sensitive enough to detect sub-clinical adrenia. As a result, patients tested for adrenal functions

1. http://adrenalfatigue.org/doi.php

are told they are "normal" but in reality, their adrenal glands are performing sub-optimally, with clear signs and symptoms as the body cries out for help and attention."

"Adrenal fatigue afflicts more people than Addison's disease. It is not recognized and has become an epidemic of massive proportion."

My relative evaluated his symptoms, and the fact that he also had very low thyroid hormones. He did not want to begin thyroid supplementation without supporting the adrenals first. He followed the dosing protocol advised by Dr. Peatfield for Hydrocortisone (Cortef). He noticed improvement right away and is doing well. He was able to introduce a prescription for Armour thyroid and did even better, with his temperatures finally coming up to normal.

* * *

Here's an example with less cortisol:.

Figure 1. Circadian Cortisol Profile

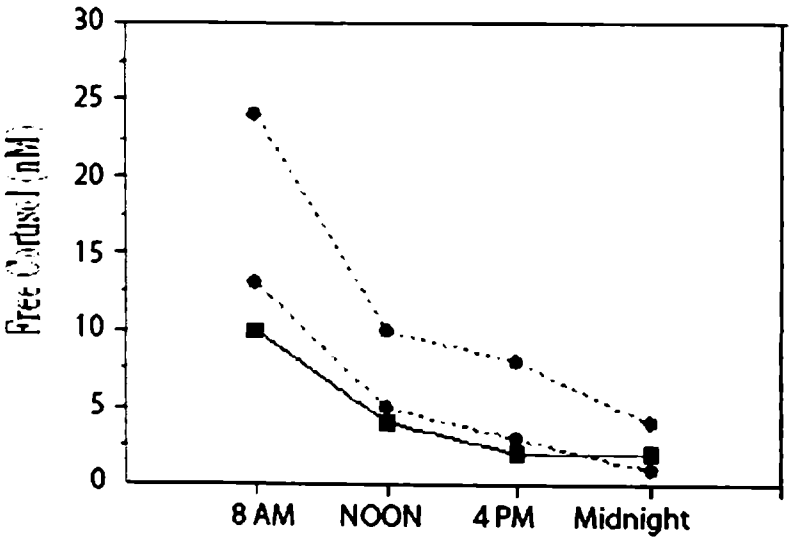

Figure -15.

07:00 - 08:00 AM	10	Depressed	13-24 nM
11:00 - Noon	4	Depressed	5-10 nM
04:00 - 05:00 PM	2	Depressed	3-8 nM
11:00 - Midnight	2	Normal	1-4 nM
Cortisol Burden:	18		23 - 42

Figure -16.

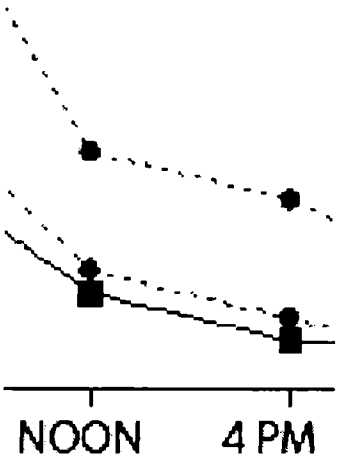

Figure -17.

DiagnosTechs will focus on the average of the Noon and 4 pm readings to determine where the black square goes.

The DHEA is within normal range. This person is on the edge of zone 5, but the lab does consider it a zone 5 as explained below.

I think most of us could agree that this person has a low cortisol output. The cortisol burden (combined values) is 18 (23 - 42 normal range). The lab mentions that this condition is usually the outcome of stress–but really there is no way to say exactly what caused this person's condition without doing additional lab tests.

* * *

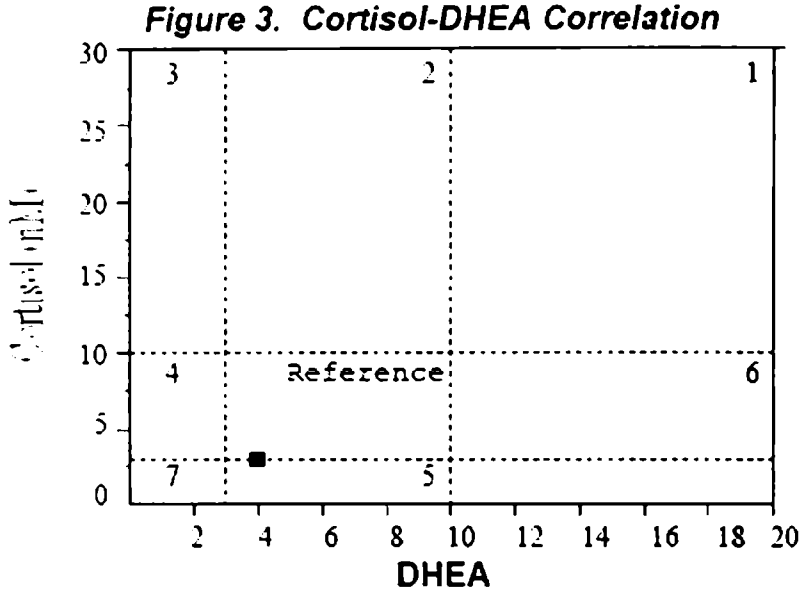

Figure -18.

DHEA **Dehydroepiandrosterone**

Pooled Value	4	Normal	Adults (M/F): 3-10 ng/ml

Figure 3 **shows your cortisol-DHEA correlation was in:**

Zone 5 - Non-adapted, Low Reserves

This zone represents a suboptimal cortisol output reflecting an adrenal decline or a depleted reserve. The reduced demand for pregnenolone precursor in the cortisol pathway may allow a normal DHEA production. This condition is usually the outcome of chronic and protracted exposure to stressors.

Figure -19.

Here's an example with even less cortisol:

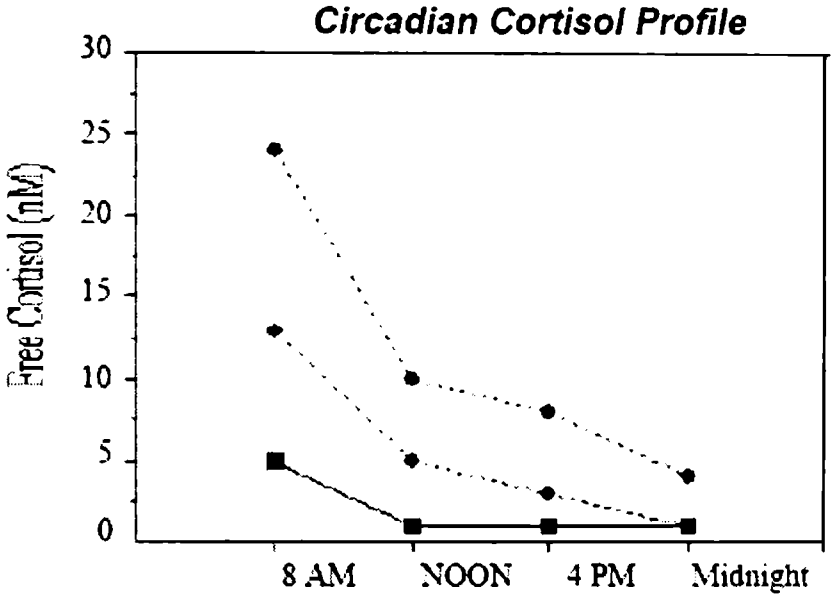

Figure -20.

This person had immeasurable cortisol 3 of the points in the day, with a total combined cortisol burden of only 8 (range 23 - 42).

07:00 - 08:00 AM	5	Depressed	13-24 nM
11:00 - Noon	<1	Depressed	5-10 nM
04:00 - 05:00 PM	<1	Depressed	3-8 nM
11:00 - Midnight	<1	Depressed	1-4 nM
Cortisol Burden:	8		*23 - 42*
DHEA Dehydroepiandrosterone	4	Normal	Adults (M/F): 3-10

Figure -21.

The average of the Noon and 4 pm readings would put the black square as low as it could go, because both readings were immeasurable. But because the DHEA was within the normal range, the black square goes to zone 5.

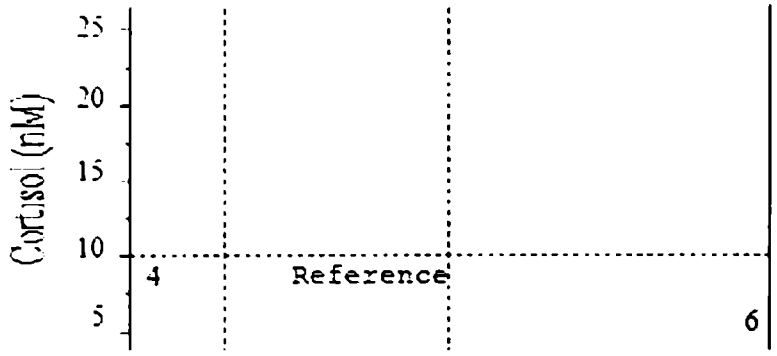

Figure -22.

Do you see the explanation for Zone 5–"Non-adapted, Low Reserves"? They are assuming this person was subjected to stress. If they had "adapted" to the stress, they would be putting out high levels of cortisol. The cortisol is low, so they are "Non-adapted".

KEY: CORTISOL-DHEA CORRELATION

1. Adapted to stress.
2. Adapted with DHEA slump.
3. Maladapted Phase I.
4. Maladapted Phase II.
5. Non-adapted, Low Reserves.
6. High DHEA.
7. Adrenal Fatigue.

Figure -23.

The "low reserves" means that if the person gets sick, or other increased stress, they lack the "reserves" to put out the increased cortisol that the body requires. Dr. Jefferies talks about this in his book *Safe uses of Cortisol.*

* * *

You might think that a Zone 6 is worse than a Zone 5, but not necessarily.

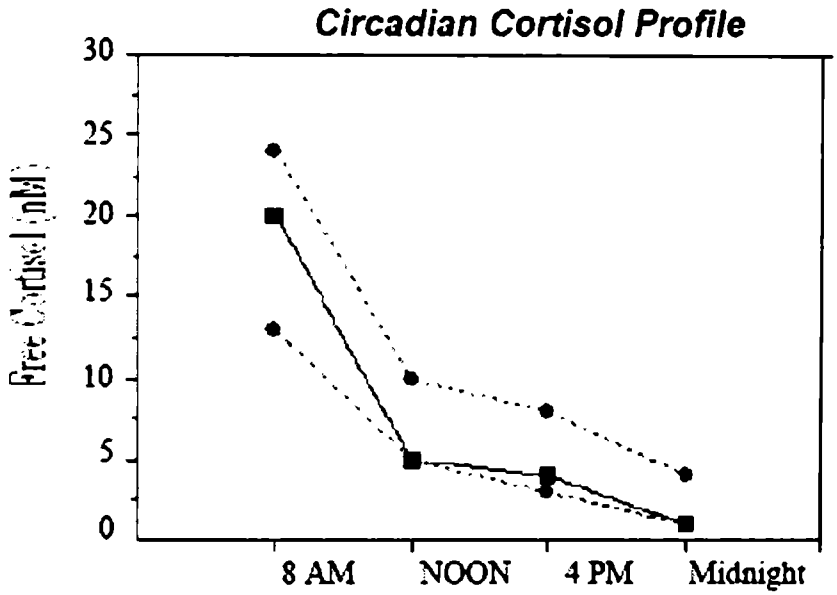

Figure -24.

This person has almost a perfect centerline normal "cortisol burden" of 30 (23 - 42) but the DHEA is way higher than normal.

07:00 - 08:00 AM	20	Normal	13-24 nM
11:00 - Noon	5	Normal	5-10 nM
04:00 - 05:00 PM	4	Normal	3-8 nM
11:00 - Midnight	1	Normal	1-4 nM
Cortisol Burden:	30		***23 - 42***
DHEA Dehydroepiandrosterone	19	Elevated DHEA	Adults (M/F): 3-10

Figure -25.

Here you can see how the DHEA has shoved the black square far over to the right, and if the cortisol amounts from the average of Noon and 4 pm fall within the normal range, it is a Zone 6.

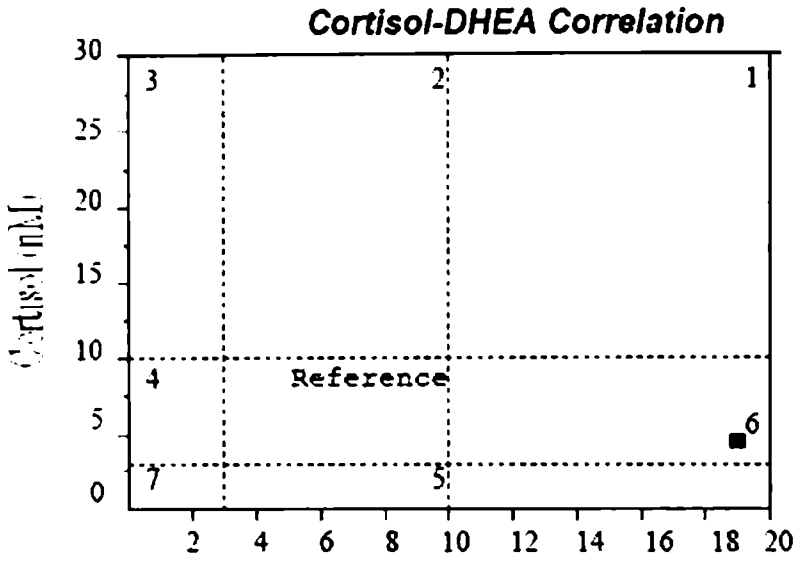

Figure -26.

There are examples of labs with the black square in Zone 6 that had lower cortisol, and I have seen some with cortisol so low that it lands in the area "below 6" that has no Zone number.

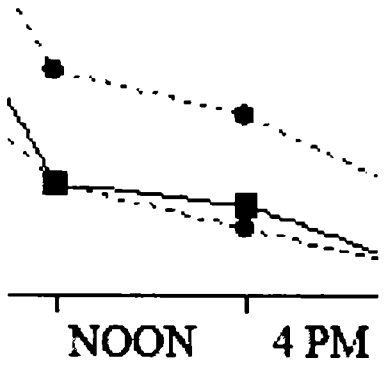

Figure -27.

High DHEA is a problem. Dr. Peatfield says "High levels of cortisol and DHEA show adrenals under stress. Sometimes the cortisol pathway starts to fade as exhaustion sets in, with DHEA still reasonably present. Less commonly, there may be a really

high DHEA–a response to ACTH stimulation but with the cortisol pathways responding poorly. Erratic levels in both are evidence of strain and uneven response."

* * *

Let's look at another example

Figure 1. Circadian Cortisol Profile

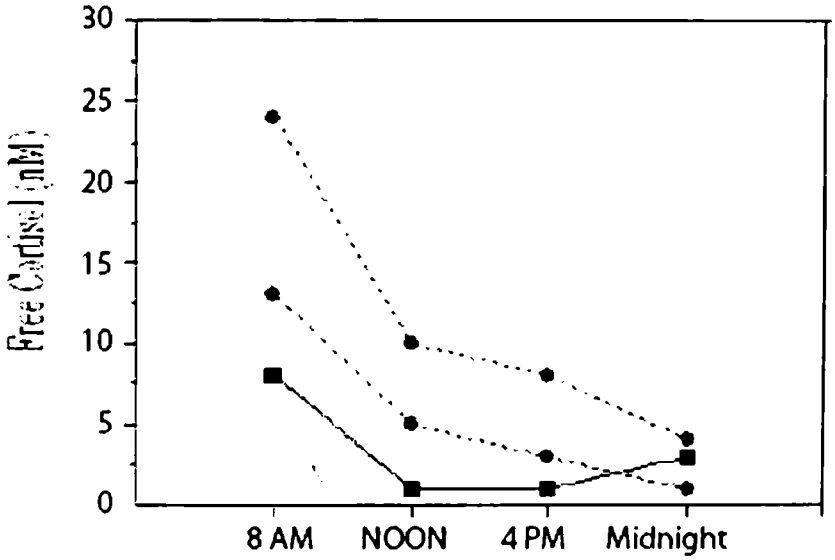

Figure -28.

This person has low cortisol, especially in the mid-day, when DiagnosTech focuses on where to put the little black square.

Free Cortisol Rhythm			
07:00 - 08:00 AM	8	Depressed	13-24 nM
11:00 - Noon	1	Depressed	5-10 nM
04:00 - 05:00 PM	1	Depressed	3-8 nM
11:00 - Midnight	3	Normal	1-4 nM
Cortisol Burden:	13		23 - 42

Figure -29.

Because the DHEA was below normal, the black square ends up in Zone 7.

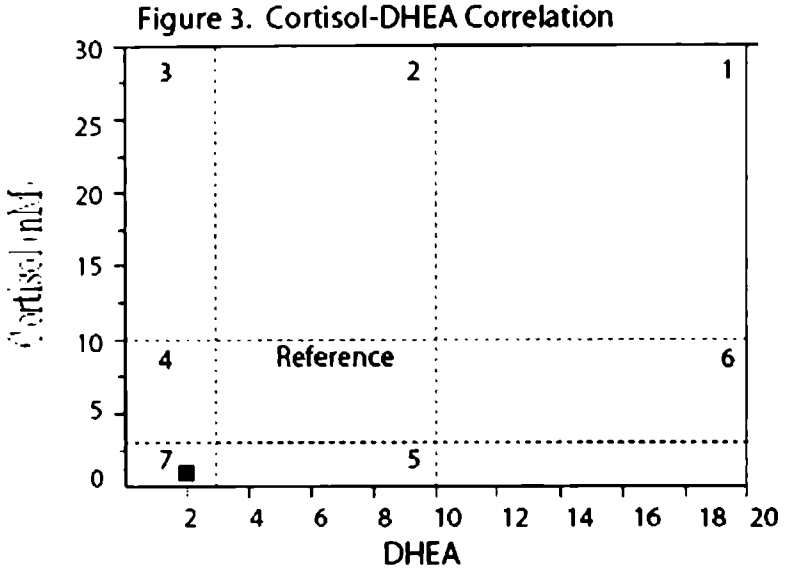

Figure -30.

OK, so the lab is explaining low Cortisol and low DHEA. They say that taking steroids could cause a lab result like this and the instructions that come with the DiagnosTechs kit warn that the use of Hydrocortisone, Isocort, etc. will affect the results. That is why you want to do these tests BEFORE treatment.

DHEA Dehydroepiandrosterone
Pooled Value 2 Depressed DHEA Adults (M/F): 3-10 ng/ml

Figure 3 shows your cortisol-DHEA correlation was in:

Zone 7 - Adrenal Fatigue

This zone represents a fatigue or suppression of the adrenals with overt deficits in either or both cortisol and DHEA production. Individuals with suppressed hypothalamic pituitary axis due to exogenous steroid overuse may also show results that fall in zone 7.

Figure -31.

This person had very low DHEA. People with hypo-pituitary often have low DHEA on lab tests, so it isn't always a simple matter of "stress" or fatigued adrenals.]

* * *

Let's look at another "Zone 7" example. Zone 7's is not always "flat-lining".

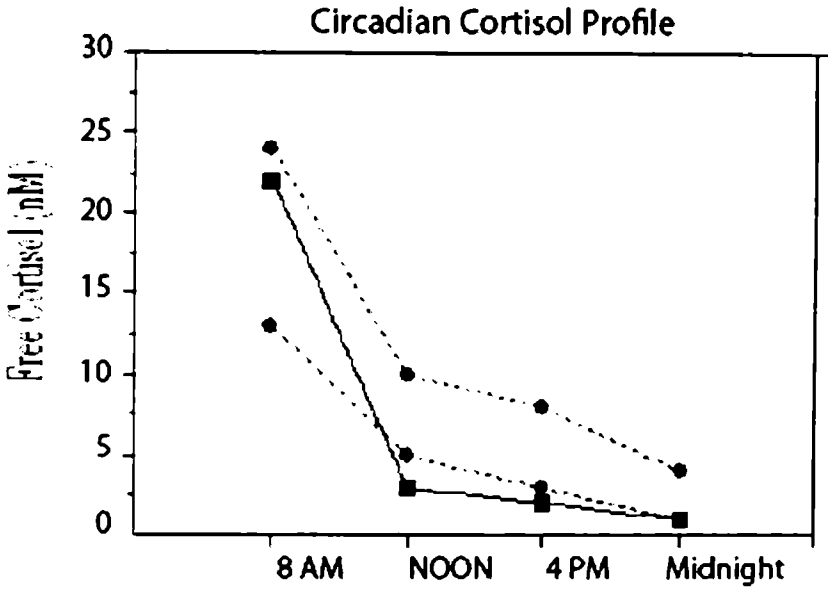

Figure -32.

Because of the high morning cortisol, this person's total cortisol output for the day "28" is within the normal range (23 - 42). But the DHEA is below normal.

Why did the black square end up in "Zone 7"?

Remember, DiagnosTechs uses the mid day average to place the little black square

07:00 - 08:00 AM	22	Normal	13-24 nM
11:00 - Noon	3	Depressed	5-10 nM
04:00 - 05:00 PM	2	Depressed	3-8 nM
11:00 - Midnight	1	Normal	1-4 nM
Cortisol Burden:	28		23 - 42
DHEA Dehydroepiandrosterone	2	Depressed DHEA	Adults (M/F): 3-10

Figure -33.

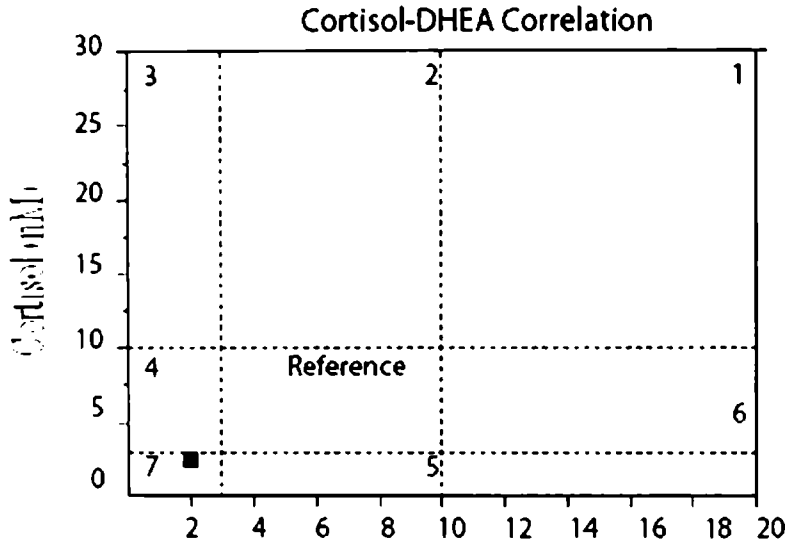

Figure -34.

* * *

This person has the low morning cortisol, with normal levels later in the day. Dr. Lam describes this on his site, and that it indicates adrenal fatigue

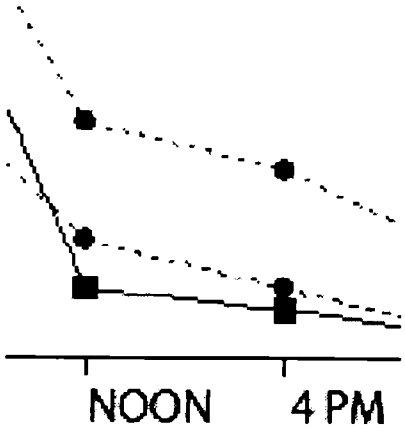

Figure -35.

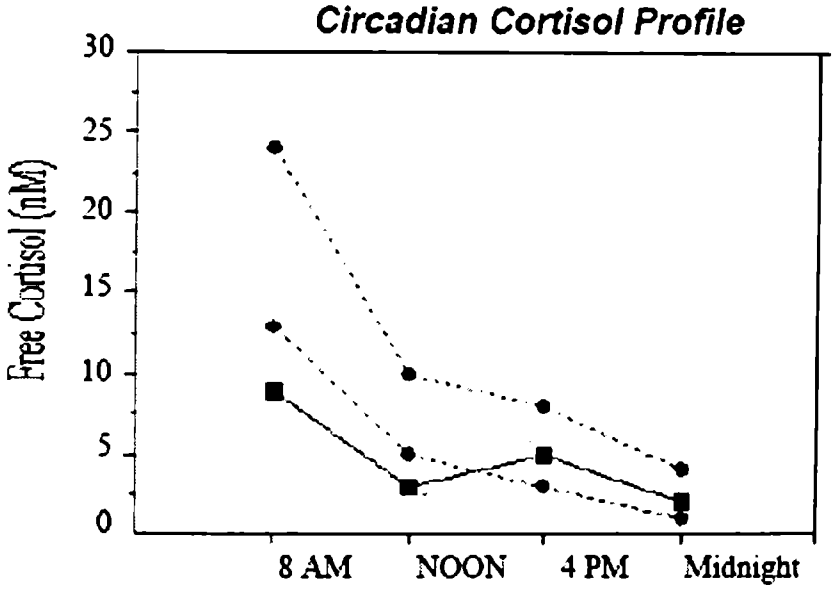

Figure -36.

The average of the Noon and 4 pm cortisol levels fit within the normal range. The DHEA fit within the normal range, so this person's "Zone" is normal. But the cortisol burden of 19 falls below the reference range (23 - 42). Do you see how the cortisol rhythm is "flattened" compared to normal? This person suffered from fatigue.

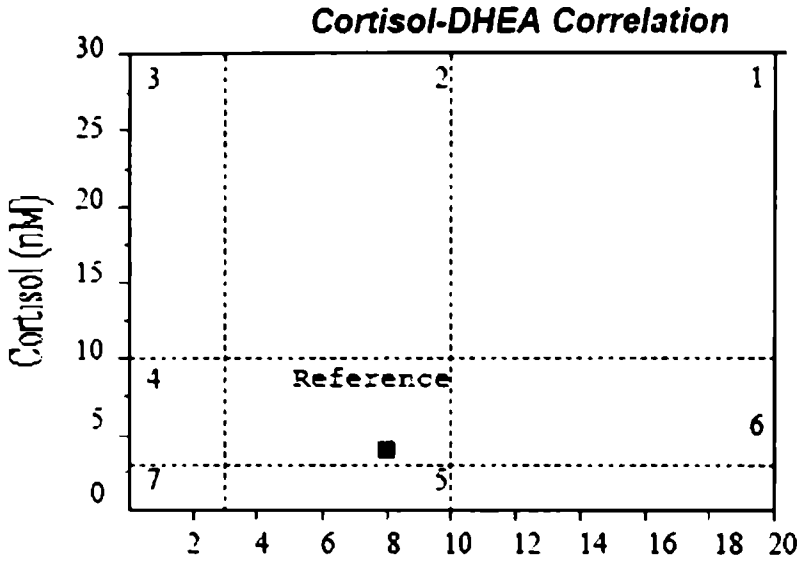

Figure -37.

07:00 - 08:00 AM	9	Depressed	13-24 nM
11:00 - Noon	3	Depressed	5-10 nM
04:00 - 05:00 PM	5	Normal	3-8 nM
11:00 - Midnight	2	Normal	1-4 nM
Cortisol Burden:	19		***23 - 42***

DHEA Dehydroepiandrosterone

8	Normal	Adults (M/F): 3-10

Figure -38.

* * *

Here's another example of a person who suspected adrenal problems due to their symptoms. Their lab came back like this:

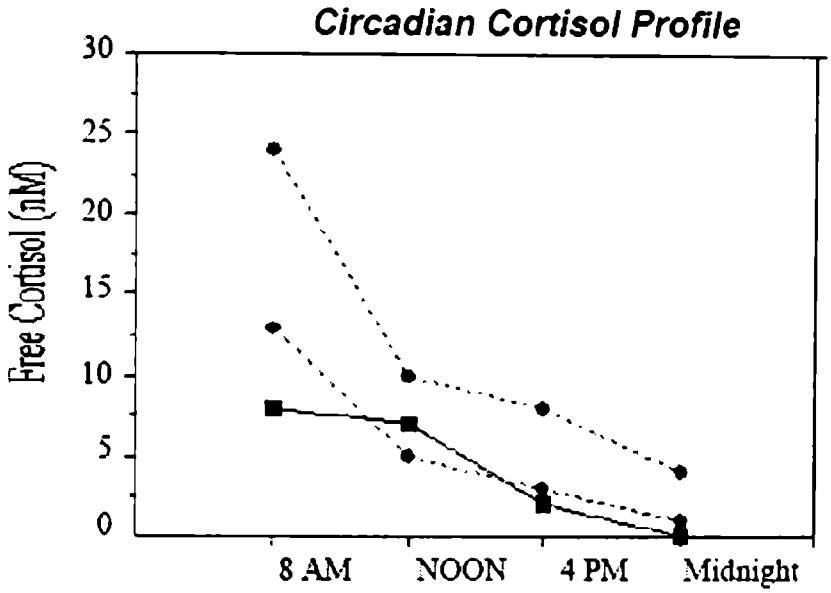

Figure -39.

Again we see that the average of the Noon and 4 pm Cortisol amounts are within normal range, and the DHEA is OK. But the total cortisol (Burden) is below normal.

Do you see where it says the final cortisol reading is < (less than) 0.3? If you search through Diagnostech.com and read through the technical articles, you will find this comment

Addison's Disease: < 1nM (any time)

The link to that quote cannot be done "directly" due to the way their site is set up; you have to click on "Tests & Panels" then "Conceptual Framework" then "Test Specifications". The same comment can be found on pg 36 of the 43 page Adrenal Stress Index manual provided to doctors, but I would not give anyone the label of "Addison's" until they had further testing done.

Nonetheless, it is noteworthy when there is immeasurable cortisol at any point of the day, as it certainly indicates that the person has low cortisol. And as the doctors have been quoted–the person lacks "adrenal reserve". They aren't coping

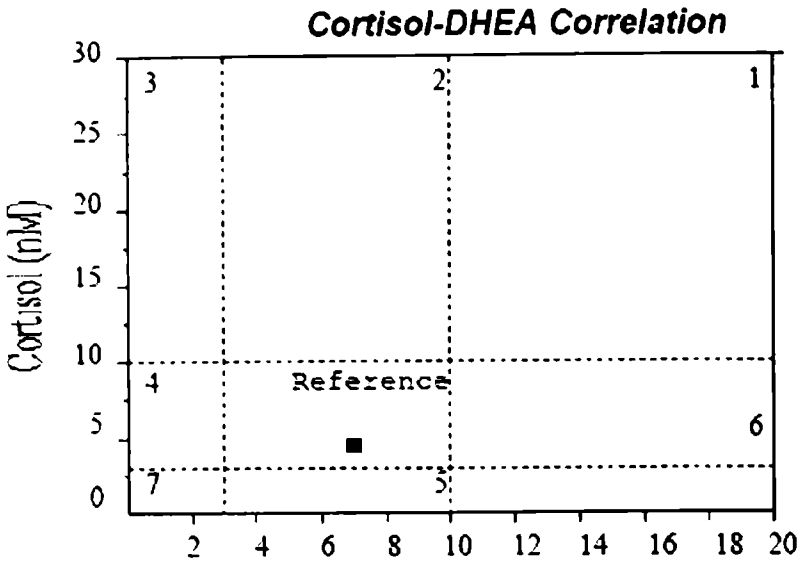

Figure -40.

07:00 - 08:00 AM	8	Depressed	13-24 nM
11:00 - Noon	7	Normal	5-10 nM
04:00 - 05:00 PM	2	Depressed	3-8 nM
11:00 - Midnight	<0.3		1-4 nM
Cortisol Burden:	17		*23 - 42*
DHEA Dehydroepiandrosterone	7	Normal	Adults (M/F): 3-10

Figure -41.

with current cortisol needs, so how can they produce the extra cortisol needed during times of illness, or other stress such as bad news, car wreck, etc?

It would be a mistake to simply glance at this person's reference zone and say it was a "Normal" result. You have to look at the cortisol rhythm, the total amount of cortisol they are making, and the symptoms of the patient that may indicate adrenal fatigue (including blood pressure test upon standing, etc. See Chapter 5.

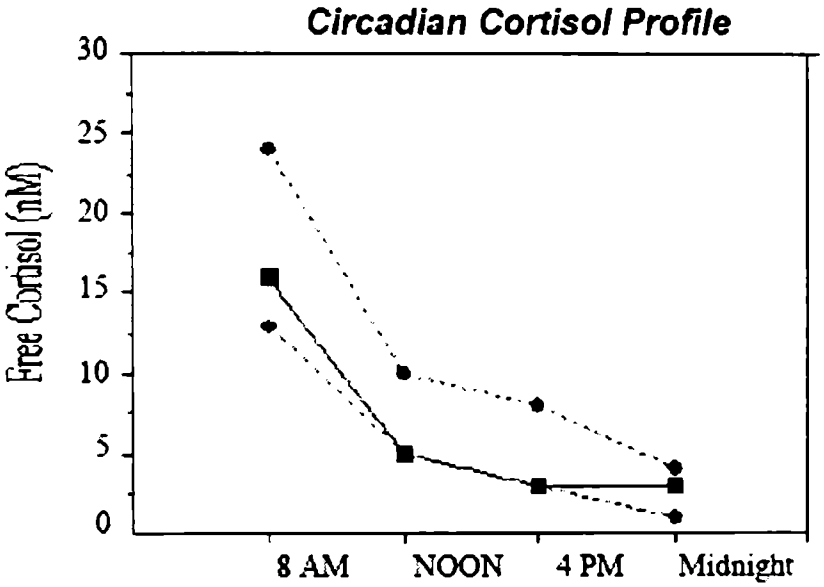

Figure -42.

* * *

This lab result is kind of borderline.

07:00 - 08:00 AM	16	Normal	13-24 nM
11:00 - Noon	5	Normal	5-10 nM
04:00 - 05:00 PM	3	Normal	3-8 nM
11:00 - Midnight	3	Normal	1-4 nM
Cortisol Burden:	27		***23 - 42***
DHEA Dehydroepiandrosterone	2	Depressed DHEA	Adults (M/F): 3-10

Figure -43.

As you can see, their cortisol burden is at the low end of normal, and the DHEA is below normal.

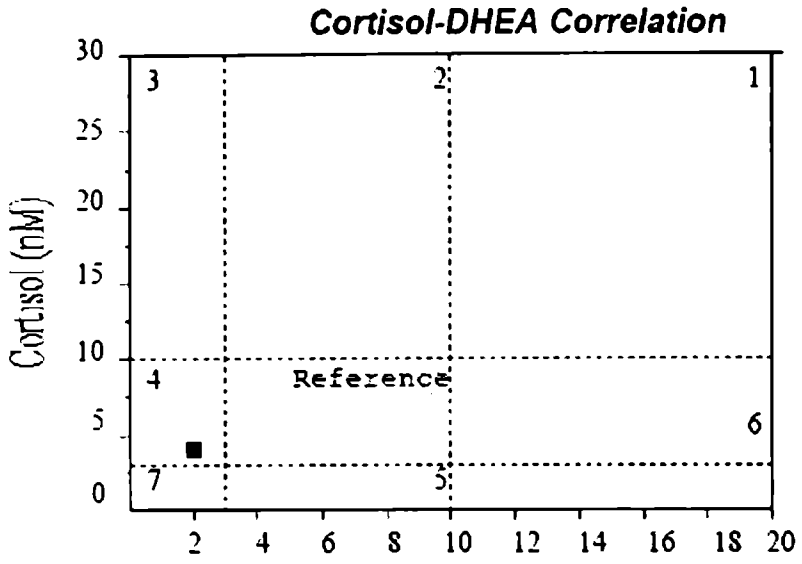

Figure -44.

This person submitted a lab sample because she suspected adrenal fatigue due to her symptoms. This is an example where the DiagnosTechs Zone system is helpful. The mid-day cortisol amounts fall within the normal range (actually all her cortisol points are within normal). But the DHEA is low, and if you believe in the theory proposed by Dr. Selye, Dr. Lam, Dr. Peatfield, and others, this is an indicator that the adrenals are fatigued.

* * *

So far we have focused on the cortisol labs from Diagnos-Techs–but there are other labs that do these tests. One of the popular ones is Genova (formerly known as Great Smokies Diagnostic Labs).

My doctor had boxes from Genova in his office so when I told him I wanted to get my adrenals checked he gave me their box.

I was fairly certain that I had adrenal fatigue. I had symptoms of chronic fatigue for 21 years following a severe viral illness (Epstein Barr).

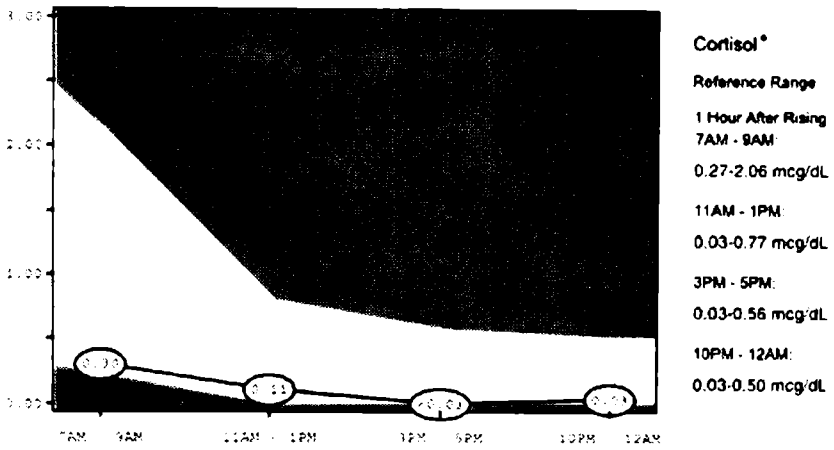

Figure -45.

Do you see how the Genova range of "normal" cortisol is hugging the bottom of the chart? It seems to go all the way down to "zero" on the cortisol measurement. I had immeasurable cortisol at 4 pm and it doesn't even appear out of range on the graphMy doctor had boxes from Genova in his office so when I told him I wanted to get my adrenals checked he gave me their box–it is at the edge of "normal".

There is no mention of cortisol burden.

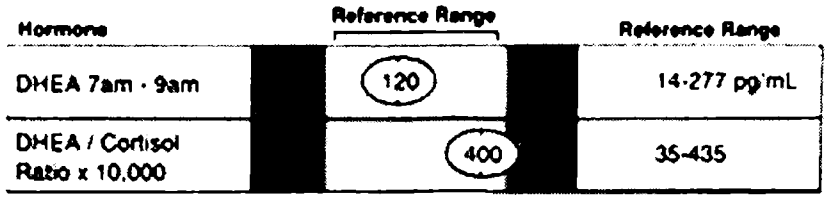

Figure -46.

Genova labs show the DHEA like this; mine was a bit lower than centerline.

Now compare my labs, with immeasurable and barely measurable readings, to a woman's labs from DiagnosTechs, below. She has definite symptoms of adrenal fatigue over many years. After this lab test, her doctor gave her a prescription for Cortef.

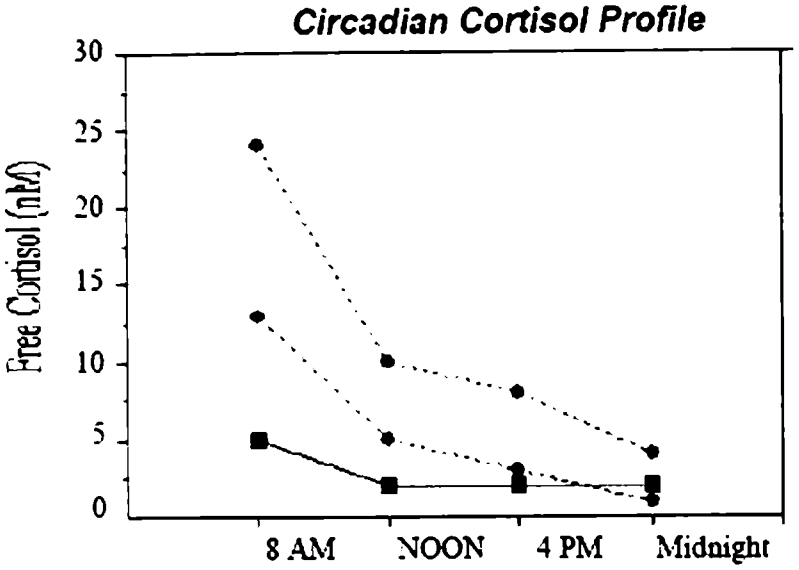

Figure -47.

07:00 - 08:00 AM	5	Depressed	13-24 nM
11:00 - Noon	2	Depressed	5-10 nM
04:00 - 05:00 PM	2	Depressed	3-8 nM
11:00 - Midnight	2	Normal	1-4 nM
Cortisol Burden:	11		*23 - 42*
DHEA Dehydroepiandrosterone	3	Borderline	Adults (M/F): 3-10

Figure -48.

As you can see, her cortisol burden "11" is about half of the low end of normal (23 - 42). Her lowest readings at any point of day are "2" and we have seen some DiagnosTech examples at "1" and some that were not measurable (expressed as < 1 meaning "less than"). The way that DiagnosTechs charts the cortisol readings, it is very easy to compare with a "normal" range. When the result is low, you can evaluate HOW low.

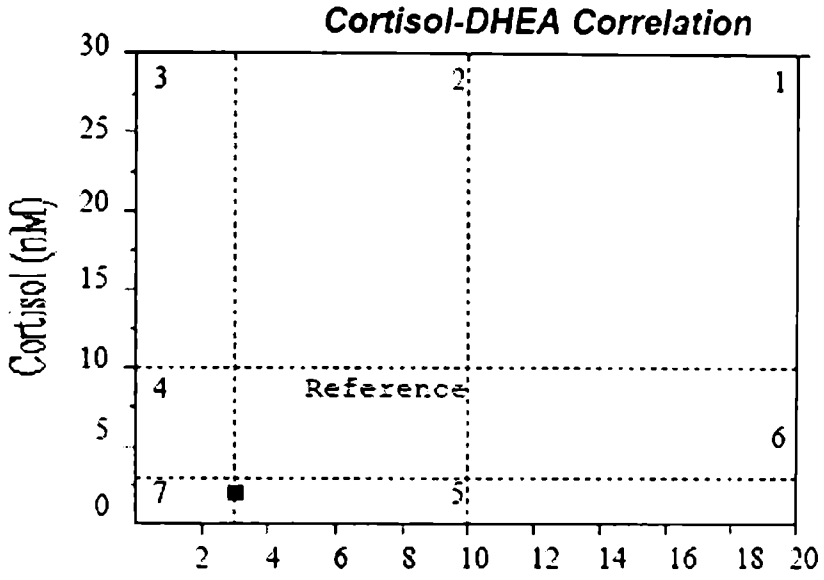

Figure -49.

I am of the personal opinion that the Genova lab range is overly broad, and that low levels of cortisol are hard to evaluate. I called them twice to discuss, left messages with whoever the receptionist transferred me to–and never got a call back.

This is a Cortisol- DHEA correlation. To me, this seems more useful than Genova's DHEA/Cortisol ratio. I can see at a glance if the Cortisol is high or low. I can see if the DHEA is high or low. The relationship of the 2 is clearly expressed.

* * *

Now let's look at an example from ZRT Labs

This member also gave permission to publish his chart (personal info removed) and described symptoms of adrenal fatigue. After receiving his lab result, he decided to treat his adrenals with Isocort.

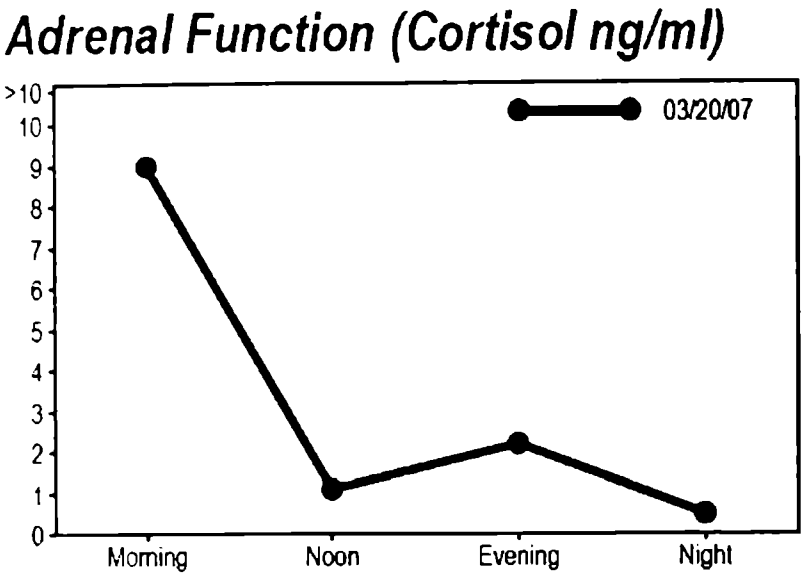

Figure -50.

Hormone Test	In Range	Out Of Range	Units	Range
Estradiol (saliva)	1.0		pg/ml	0.8-2.2
Progesterone (saliva)	26		pg/ml	12-100
Testosterone (saliva)	80		pg/ml	44-148 (Age Dependent)
DHEAS (saliva)	8.5		ng/ml	2-23 (Age Dependent)
Cortisol Morning (saliva)	9.0		ng/ml	3.7-9.5
Cortisol Noon (saliva)		1.1 L	ng/ml	1.2-3.0
Cortisol Evening (saliva)		2.2 H	ng/ml	0.6-1.9
Cortisol Night (saliva)	0.5		ng/ml	0.4-1.0
Free T4 (blood spot)	2.5		ng/dL	0.7-2.5
Free T3 (blood spot)		2.1 L	pg/ml	2.5-6.5
TSH (blood spot)	1.8		uU/ml	0.5-3.0
TPO (blood spot)		2247 H	IU/ml	0-150 (70-150 borderline)

Figure -51.

This person has an erratic rhythm–yet appears to have adequate cortisol production overall. I don't see ZRT commenting on the cortisol burden.

One of the nice things about ZRT is they have the patient fill out a questionnaire and the report will comment on your symptoms as well as the measurement of cortisol.

Addendum G

55 Questions About Adrenal Fatigue

This is a list of the most frequently asked questions by patients who frequent forums which concern adrenal fatigue and its treatment. It was observantly compiled by thyroid/adrenal/pituitary patient Bob Harvey. Answers will refer to page numbers in this book where you will find the information.

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Glossary

ACTH Stimulation (STIM):
test which measures the level of cortisol before and after an injection of synthetic ACTH.

Addison's Disease:
malfunction of the adrenal glands most commonly from an autoimmune destruction, causing an underproduction of cortisol.

Adrenals:
small glands which sit on top of each kidney and are chiefly responsible for our stress response, plus other important functions. They produce cortisol, adrenaline, aldosterone and DHEA, plus estrogen, progesterone, testosterone, and others.

Adrenal Fatigue:
condition of sluggish adrenal function resulting in low cortisol levels, and sometimes low aldosterone.

Adrenal Insufficiency:
condition of low cortisol production caused by Addison's disease, a progressive condition usually caused by an autoimmune attack.

Aldosterone:
steroid produced by the adrenals, regulating sodium and potassium.

Armour:
brand name of natural desiccated pig thyroid made by Forest Laboratories.

Antibodies:
blood proteins produced by your immune system in response to a problem.

Antidepressant:
a type of medication prescribed to treat depression.

Antithyroglobulin:
an antibody directed against the protein thyroglobulin, which is important for thyroid hormone production.

Autoimmune:
refers to an immune system going haywire, attacking its own cells and tissues, such as Celiac, Hashimotos, Diabetes Type 1, Lupus, Rheumatoid Arthritis, etc.

B-12:
vitamin which maintains healthy nerves and red blood cells.

Butthead:
how patients have internally described their doctors when the doctor pooh-poohed their continuing hypothyroid symptoms while on a T4-only med.

Carbohydrates:
organic compounds in foods that supply energy and include simple sugars like glucose or complex sugars like cellulose or starch.

Calcitonin:
hormone produced by the thyroid which helps bone strength.

CFS:
abbreviation for Chronic Fatigue Syndrome, a condition that many feel is simply untreated or undertreated hypothyroid.

Corticosteroid:
class of adrenal steroid hormone which is anti-inflammatory, like cortisol.

Cortisol:
a corticosteroid hormone produced by the adrenals, also called the stress hormone; in healthy individuals, it's highest in the early morning, lowest at bedtime.

Cushing's Syndrome:
disorder of the adrenals causing over-production of cortisol.

Cytomel (liothyronine sodium):
brand name for synthetic T3 by Jones Pharma.

DHEA:
hormone secreted by the adrenal glands which is a precursor to testosterone.

D.O:
abbreviation for Doctor of Osteopathy.

Desiccated Thyroid:
the term for porcine pig thyroid that has been dried and powdered, containing exactly what the human thyroid makes–T4, T3, T2, T1 and calcitonin.

Electric Shock Therapy (EST):
a treatment of voltage thought to decrease depression.

Eltroxin:
brand name of synthetic T4 (levothyroxine, thyroxine) medication.

Endocrine glands:
glands that secrete hormones into the blood, including the pituitary gland, pancreas, gonads, thyroid and adrenals.

Endocrinologist:
a doctor who specializes in the Endocrine System.

Estrogen:
steroid acting mainly as a female hormone, and occurs as either estradiol, estriol and estrone.

Estrogen dominance:
condition where the female hormone estrogen is too high as compared to progesterone levels, and unopposed.

Euthyroidism:
being normal in thyroid function.

Ferritin:
iron storage protein.

Fibromyalgia:
a condition characterized by widespread pain in the muscles and joints, and includes fatigue, sleep disorders, and depression.

Florinef (fludrocortisone acetate):
prescription corticosteroid drug with some glucocorticoid potency, but with greater mineralcorticoid potency, used for low aldosterone levels.

Free Thyroxine Index (FTI or F7):
tells how much T4 is present compared to the thyroxine-binding globulin; is considered an outdated lab test.

Garbage can:
where many thyroid patients have thrown their T4 medications after they got on desiccated thyroid and lived again.

Glucocorticoid:
a steroid adrenal hormone of which the most abundant is cortisol.

Glycyrrhizic acid:
molecule found in the licorice plant which extends the life of cortisol by inhibiting enzyme responsible for inactivating cortisol in the kidneys.

Goiter:
enlargement of the thyroid gland.

Graves Disease:
hyperthyroidism, or overactivity of the thyroid gland.

Hashimotos Disease:
an autoimmune attack on the thyroid gland which can result in a goiter and causes swings between hyperthyroid and hypothyroid.

Hepatitis:
a blood-born virus which affects the liver negatively; often caused by intravenous or nasal drug use, tattoos or unsafe sex or social practices.

Hoodwinked:
how thyroid patients feel when they find out that all the antidepressants, cholesterol meds and other medications may not have been needed if they had been on desiccated thyroid.

Hydrocortisone (HC):
synthetic cortisol medication.

Hyperthyroidism:
condition of excess thyroid function and hormones.

Hypothalamus:
small gland in the brain which sends messages to the pituitary to stimulate the adrenals and thyroid.

Hypothyroidism:
condition of insufficient thyroid function and hormones.

Insulin:
hormone from the pancreas that enables cells to take in blood sugar (glucose).

Iodine:
naturally-occurring element key to good health, and of which thyroid hormones are primarily composed.

Iodine Loading Test:
urine test used to determine if iodine levels are sufficient.

Isocort:
a popular over-the-counter adrenal support from sheep's glands.

L-Thyroxine:
another name for T4.

Levothroid:
brand name of synthetic T4 by Forest Laboratories.

Levothyroxine:
generic term for all synthetic T4-only medications.

Levoxyl:
brand name of a synthetic T4-only medication by King Pharmaceuticals.

Liothyronine:
generic term for synthetic T3-only medications

Lithium:
prescription drug used to treat bipolar disorder, and which also inhibits thyroid function.

Medrol (Methylprednisolone):
a synthetic cortisol prescription medication used to treat inflammation and improve symptoms of certain disorders.

Melatonin:
a hormone which regulates our circadian rhythm to cause drowsiness.

Metabolism:
chemical reactions which give energy.

Mineralcorticoid:
class of adrenal steroid hormone which promotes sodium retention and fluid balance, like aldosterone.

Mitral Valve Prolapse (MVP):
a mostly benign condition of the heart resulting in a floppy mitral valve and slight regurgitation.

Myxoedema:
skin and tissue thickening and puffiness caused by hypothyroidism.

Natural Thyroid:
another name for desiccated thyroid.

Naturethroid:
a brand of natural desiccated pig thyroid by RLC Labs, formerly Western Research Labs.

Naturopathy:
an alternative form of medicine with a holistic approach and which may include homeopathy, herbs, acupuncture, aromatherapy, and others.

Nimcompoop:
what a patient called her doctor when he thought it was okay to hold her on one grain of Armour for six weeks before raising.

Nodule:
a small and abnormal lump on the thyroid, mostly benign with 10% being cancerous.

Nutri-Meds:
brand name of non-prescription form of desiccated thyroid, bovine or porcine.

Oroxine:
Australian brand of synthetic T4, as is Eutroxsig.

Osteopathy:
medical approach that emphasizes the role of the musculoskeletal system in health or disease

Osteoporosis:
a calcium-wasting bone disease making bones brittle and easily broken.

Palpitation:
a normal heartbeat; sudden extra-beat.

Pituitary Gland:
small gland in the base of the brain which sends stimulating messengers to other glands, including the thyroid and adrenals.

Phosphatidylserine (PS):
a nutrient of which half is in our brain cells; the supplement is soy-derived and is said to boost brain power, plus lower high cortisol levels.

Potassium:
an essential mineral found in many foods and chemically similar to sodium.

Pregnenolone:
steroid hormone, also called the prohormone.

Primary Adrenal Fatigue:
sluggish adrenal function resulting in low cortisol and found as a poor function in the adrenals themselves.

Progesterone:
steroid hormone involved in menstruation and pregnancy.

RAI (Radioactive Iodine):
The use of radioactive iodine in the treatment of hyperthyroidism which slows down the activity of the thyroid. Considered unnecessary and with too many potential side effects by a growing body of thyroid patients in favor of blocking medications.

Renin:
protein released in response to decreased salt levels.

Reverse T3:
the inactive form of T3 made by T4 conversion; made when the body needs to decrease its T4.

Stop the Thyroid Madness:
a term coined by author and website creator Janie Bowthorpe to describe a revolution for better thyroid treatment.

Secondary Adrenal Fatigue:
sluggish adrenal function caused by Hypopituitary, or the failure to send the ACTH messenger to stimulate the adrenals to produce.

Selenium:
a trace mineral important for good health and which promotes the conversion of T4 to T3.

Stupidly:
the way the TSH lab test discovers hypothyroid.

Synthroid:
form of synthetic T4 made by Abbott Laboratories.

Subclinical hypothyroidism:
the term for a mild form of hypothyroid, though it's often the diagnosis of a doctor who relies solely on a TSH lab result rather than symptoms.

T3:
active form of thyroid hormone, also called triiodothyronine.

T4:
storage form of thyroid hormone, also called thyroxine.

T4-only:
shortened name for a thyroxine-only medication like Synthroid, Levoxyl et al.

Testosterone:
steroid hormone secreted in the testes of males and the ovaries of females.

Testy:
how a patient gets if one more doctor proclaims she is "normal".

Thyroid:
butterfly shaped gland which has a major role in our energy levels and good health.

Thyroid Hormone Resistance:
syndrome of poor cellular response to thyroid hormones, causing a patient to need higherdoses to get the same effect of lower doses.

Thyroid Peroxidase (TPOab):
enzyme that is important in the formation of the thyroid hormone.

Thyroiditis:
another term for Hashimotos or inflammation of the thyroid.

Thyrolar (Liotrix):
brand name for combined synthetic T4/T3 drug made by Forest Pharmaceuticals.

Thyrotropin Releasing Hormone (TRH):
hormone released by the Hypothalamus to send a message to the Pituitary gland.

Thyroxine
name for T4, the thyroid storage hormone.

Thyroxine-binding globulin test:
measures the level of thyroid hormone-binding proteins.

Triiodothyronine:
name for T3, the active thyroid hormone.

TSH:

Thyroid Stimulating Hormone, secreted by the pituitary to stimulate the thyroid.

Unithroid:

brand name of synthetic T4 made by Jerome Stevens Pharmaceuticals.

Westhroid:

brand of natural desiccated thyroid hormone by RLC Labs, Inc (formerly Western Research Labs)

Wilson's Syndrome:

condition of high levels of Reverse T3 and low body temperature, coined by an MD of the same name.

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Resources

Though this *Stop the Thyroid Madness* book goes beyond much of what you can find in any other books or websites, there is still good information out there to add to what you've learned here, or to underscore it. And since education is the key for important change, this section includes a compilation of just those kind of resources. All of this is subject to change, and subsequent editions of this book will update as needed.

SUPPLEMENTAL READING:

Your Thyroid and How to Keep it Healthy

by Dr. Barry Durrant-Peatfield. MB BS LRCP MRCS

This is Peatfield's Second Edition of *The Great Thyroid Scandal and How to Survive It*, and it filled with excellent information about the thyroid, hypo and hyper, iodine, female hormones and testosterone, and an excellent chapter on your Adrenals and how to use Cortisol when cortisol levels are low. Highly recommended.

Dr. Peatfield entered general practice around 1962. His increasing disenchantment with the NHS impelled him to enter private practice where he was drawn to the diagnosis and treatment of thyroid problems. He was impressed with the work of Dr. Broda Barnes and was determined to improve the lot of patients with thyroid illness. He now lectures and holds nutritional clinics specializing in metabolic health.

Safe Uses of Cortisol

by William McK. Jefferies, M.D., F. A. C. P.

This one is for the "adrenal student" wanting to know more, and is highly recommended by Janie. It includes therapeutic recommendations and important aspects of cortisone or cortisol in patients with chronic allergies, autoimmune disorders, and chronic fatigue. I personally outlined this book extensively. Incredible gems of information.

Dr. Jefferies graduated from the University Of Virginia School Of Medicine in 1940. He was appointed a Clinical Professor of Internal Medicine after his retirement from Case-Western Reserve University.

You can order this cheaper than anywhere else by going directly to the publisher:
www.ccthomas.com/details.cfm?P_ISBN=039807500X

Adrenal Fatigue: The 21st-Century Stress Syndrome
by James L. Wilson, N.D., D.C., Ph.D.

A friendly book that's easy to read about adrenal issues, which are common with hypothyroid patients. The book opens with an overview of the function of the adrenals, and how they are prone to chronic fatigue given our hyper-stressed contemporary lifestyles. It continues with information on how to tell if you have adrenal fatigue. More information and advice is given on multiple strategies for treatment, such as lifestyle, food, food allergies and sensitivities, dietary supplements, adrenal cell extracts, and replacement hormones. An excellent read.

Dr. James Wilson has three doctorate degrees and two master's degrees, all from different disciplines. He received his Ph.D. in Human Nutrition from the University of Arizona, with minors in immunology, microbiology, pharmacology and toxicology. In addition, he holds degrees as a Doctor of Chiropractic and Doctor of Naturopathic Medicine. His master's degrees are in bio/nutrition and experimental psychology. Dr. Wilson was also one of the 14 founding fathers of the Canadian College of Naturopathic medicine in Toronto, Ontario. He has helped hundreds of people with adrenal fatigue regain their health and vitality during his 24 years of private practice.

The Thyroid Paradox: How to Get the Best Care for Hypothyroidism

by James K. Rone MD

On one side of the coin, a reader noted that this doctor seems to regularly prescribe T4-only medications, is hung up on only treating when the TSH goes over 4, and is an Endocrinologist–the kind of specialty that has caused innumerable problems for thyroid patients. But it also had good information about different ways that your thyroid function can be affected

and how the standard tests with loopholes can be weak and wrongly interpreted. Rone also covers information on central hypothyroidism, human errors in medical testing and interpretation, thyroid hormone resistance, and the different shades of "normal". The book does support the fact that the TSH lab test can fail to conform to the patient's symptoms, and that symptoms shouldn't be ignored

James K Rone is a board-certified endocrinologist in Murfreesboro, Tennessee. He pursued medical studies at the University of South Carolina, his residency at Keesler U.S. Air Force Medical Center, in Biloxi, Mississippi, and his fellowship in endocrinology at Wilford Hall U.S. Air Force Medical Center, in San Antonio, Texas.

Your Guide to Metabolic Health, co-authored by Dr. Gina Honeyman, DC and Dr. John Lowe, DC.

This informative book outlines poor metabolic health, which includes low energy, aches and pains, depression, poor memory and concentration, anxiety, malaise....etc, and moves into good information on the two most common causes– untreated or under-treated hypothyroidism and thyroid hormone resistance. Other causes include imbalances of sex and stress hormones, nutritional deficiencies, unwholesome diet, poor physical fitness, some commonly-prescribed drugs, and man-made chemical contaminants. Most people can improve or recover their metabolic health by controlling or eliminating these causes.

Honeyman is chiropractic physician in the clinical practice of metabolic and functional medicine. Lowe is a chiropractic physician and board certified pain management specialist. Both practice individually in Boulder, Colorado.

Hormones, Health, and Happiness: A Natural Medical Formula for Rediscovering Youth

by Steven F. Hotze, M.D.

In an 8-point program, Hotze describes a new model of healthcare, using bio-identical hormones and other natural treatments. It goes against the prevailing medical approach of treating individual symptoms with the familiar "anti" drugs– such as antibiotics, antihistamines, and antidepressants, and

instead addresses the underlying causes of poor health. Includes information on airborne allergies, food allergies, yeast overgrowth, low thyroid function, natural hormone replacement, treatment of adrenal fatigue, nutritionally balanced eating, and vitamin and mineral supplementation.

From Houston, Steven F. Hotze, M.D.,obtained his medical degree in 1976 from the University of Texas Medical School at Houston. He established a day and night clinic in North Houston which he operated until establishing the Hotze Health & Wellness Center, in Katy, Texas in 1989. Dr. Hotze founded the American Academy of Biologically Identical Hormone Therapy in 2002 to train physicians in a standardized method of treating women's hormonal problems during and after mid life.

Hypothyroidism: The Unsuspected Illness

by Broda O. Barnes, M.D. and Lawrence Galton

A classic from 1976, this easy-to-read and pioneering book explains the thyroid gland, how it works, and problems its dysfunction can induce. Includes detailed case histories of patients, often who were thought hopeless, whose problems were discovered to be related to hypothyroidism and were cured by Dr. Barnes' simple effective techniques, included basal temperature taking and the use of desiccated thyroid. Dr. Barnes is the hero of every thyroid patient who finds out about desiccated thyroid.

Broda Barnes, M.D. practiced medicine for over 35 years. His experience with patients suffering from undiscovered cases of hypothyroidism led him to write this book. Lawrence Galton is an experienced medical writer.

Hypothyroidism Type 2: The Epidemic

by Mark Starr, M.D.

A clear and understandable explanation of why so many people today are suffering from hypothyroidism, despite "normal" blood tests. Has information on the cause and successful treatment for obesity, heart attacks, depression, diabetes, strokes, headaches, chronic fatigue, and others. In Dr. Starr's description of Type 2 Hypothyroidism, he presents overwhelming evidence showing a majority of Americans suffer

this illness, which is due to environmental and hereditary factors. This book also has excellent photographs, historical references and pertinent study summaries. Dr. Starr emphatically states that laboratory testing used to diagnose hypothyroidism is completely inadequate, and current treatment for hypothyroidism is ineffective. Ground breaking research shows how persistent environmental toxins prevent thyroid and other hormones from working properly.

Dr. Mark Starr is a Diplomat of the American Academy of Physical Medicine and Rehabilitation and a Diplomat of the American Board of Pain Medicine. He has studied with President Kennedy's famous pain specialist, Hans Kraus, M.D., and Lawrence S. Sonkin, M.D., Ph.D., renowned endocrinologist at the New York Hospital-/Cornell Medical Center.

The Great Thyroid Scandal and How To Survive It

by Dr. Barry Durrant-Peatfield, MB, BS, LRCP, MRCS

A favorite among many thyroid patients, this book is an excellent review of thyroid disease and the treatment alternatives using natural glandular extracts (desiccated thyroid) and adrenal support like cortisol. The book takes you step by step through the diagnosis and treatment of thyroid illnesses and reveals how poorly modern medicine understands thyroid disease.

Dr. Barry Durrant-Peatfield obtained his medical degrees in 1960 at Guy's Hospital, London, and entered general medicine. Finding that it was becoming increasingly difficult to practice medicine and to give the care that he was taught being a doctor meant, he resigned from the National Health Service to set up a private practice in 1980. During the next 20 years he enjoyed a freedom from the narrow confines of establishment medicine and the relationship with his patients he had always felt was the basis of good medicine. During that time, he came to learn how important a role failure in the glandular systems, led by the thyroid, played in illness; and drawing inspiration from the work of Dr. Broda Barnes, his special interest in thyroid illness grew. Finding out that he was affected by an under-active thyroid himself gave him a special insight into the diagnosis and treatment of the condition for which his patient's sought his help.

Overcoming Thyroid Disorders

by Dr. David Brownstein

This book is holistically oriented in the treatment of hypothyroidism, and shows how a natural treatment program consisting of natural thyroid hormone, other natural hormones, vitamins, minerals, diet modifications and detoxification can successfully treat many conditions. It includes over 30 actual cases from his practice. A hopeful book.

Dr. David Brownstein is a Board-Certified Family Physician and the Medical Director for the Center for Holistic Medicine in West Bloomfield, Michigan. He is a member of the American College for the Advancement in Medicine and the American Academy of Family Physicians.

The Hormone Solution: Stay Younger Longer with Natural Hormone and Nutrition Therapies

by Thierry Dr. Hertoghe MD

This book presents an effective program to counter memory loss, weight gain, poor muscle mass, hair loss and many other symptoms of aging. He recommends the use of natural hormones along with a healthy diet plus supplementation of certain minerals and vitamins. He outlines the 15 main and crucial hormones found in your body and how each helps restore the others. Book includes eating plans, checklists and hormonal profiles, all which helps slow the aging process and promote good health and well-being.

Dr. Hertoghe of Belgium is one of Europe's leading proponents of anti-aging strategies, and has a practice in Brussels as well as the European Academy of Quality of Life and Longevity Medicine. He assists in course curriculum for those doctors to graduate in Anti-aging Medicine. He promotes the controversial Human Growth Hormone and is globally regarded as an expert on the subject of anti-aging.

The Thyroid Solution: A Mind-Body Program for Beating Depression and Regaining Your Emotional and Physical Health

by Arem Ridha, M.D.

Examines the fundamentals of thyroid disease, including diagnosis and therapy, although the focus is on the significance of the thyroid in cognition and emotions. It explains the link between stress and thyroid imbalance; how thyroid imbalance affects your emotions, sex life, and relationships; and how to cope with the effects of this imbalance. Because thyroid problems primarily strike women, a whole section deals with women's health issues, such as infertility, miscarriage, postpartum depression, premenstrual syndrome, and menopause. The book also covers lifestyle choices that affect thyroid health, such as diet, supplementation, and exercise.

Dr. Ridha Arem is a Clinical Professor of Medicine at Baylor College of Medicine in Houston, TX. For years he served as Chief of Endocrinology and Metabolism at Ben Taub General Hospital, and Medical Director of the Endocrine Laboratory at Methodist Hospital. Dr. Arem currently runs a practice specializing in thyroid disorders in the Texas Medical Center.

Thyroid - Guardian of Health

by Philip G. Young, M.D.

This overall reference book examines the impact inadequate thyroid function has on individuals and the fact that hypothyroidism is frequently missed. Include history, environmental factor, and frequent clinical presentations of hypothyroidism, blood tests and their faults. Thyroid's relationship to adrenal hormones is also discussed. Very informative is how this book goes though all the major areas of the bodily functions such as digestion, circulation and tells how inadequate thyroid function impacts each system. Major areas include thyroid's role in heart disease, diabetes, autoimmune problems, cancer and infections.

Philip Young MD grew up along the Burma-China border and with his parents, fled the Japanese occupation of Burma and eventually made his way to the US. He graduated from the University Of Nebraska College Of Medicine in 1963 and spent a couple of years in the Navy off Vietnam as that war was beginning to escalate. Following a surgery residency he helped start a small mission hospital in the Philippines on the island of Palawan. Returning to the U.S. in 1977, he became inter-

ested in the thyroid gland due to health problems in his own family. He has been studying the thyroid gland since 1979. Now living in Eaton, Colorado, he is largely engaged in writing.

Thyroid Power: Ten Steps to Total Health

by Richard L. Shames, M.D. and Karilee H. Shames, R.N., Ph.D.

A holistically oriented book that discusses foods, vitamins, and natural remedies that support thyroid health; how to avoid environmental and emotional triggers; and offers tips from thyroid support groups. The authors outline a step-by-step approach to healing.

Richard L. Shames, M.D., is a graduate of Harvard and the University of Pennsylvania Medical School. A founding member of the American Holistic Medical Association, he has served as adjunct faculty at UCSF Medical Center and Florida Atlantic University and is a general practitioner in Mill Valley, California, specializing in thyroid treatment and telephone thyroid coaching nationally via his website.

Karilee H. Shames, R.N., Ph.D., is a clinical specialist in psychiatric nursing and a certified holistic nurse. She is an assistant professor of nursing at Florida Atlantic University. A low thyroid sufferer herself, Karilee has led thyroid recovery support groups for many years and works with Dr. Richard Shames, providing national telephone consultation.

Tears Behind Closed Doors

by Diana Holmes

This book is an examination of a serious medical problem (untreated/undertreated hypothyroidism) and is the result of the author's untiring crusade to prevent others from going through the physical and emotional hell she had to endure. It is a positive personal account that will give comfort and inspiration. Meticulously researched and glowing with good humor and practical advice, this book serves to focus public awareness on a problem that has been neglected far too long. Diana sets the scene by telling her own harrowing story and explaining the triumphant way in which she overcame her illness.

Diana is a UK thyroid sufferer and patient advocate who campaigns for change in the clinical practice of hypothyroidism.

Living Well with Hypothyroidism: What Your Doctor Doesn't Tell You... that You Need to Know

by Mary J. Shomon

This book covers the whole gamut of thyroid conditions and related issues, including challenging the gold standard of Synthroid as the thyroid replacement therapy of choice and new research on adding T3 to treatment. Shomon explains everything from how to choose a thyroid specialist to how calcium, antidepressants, and a high-fiber diet affect thyroid hormone absorption. The book discusses depression, which is a typical misdiagnosis of hypothyroidism and covers infertility, as well as thyroid cancer, one of the less common causes of hypothyroidism.

Mary J. Shomon is a thyroid patient advocate, health writer and thyroid patient herself. She also manages a thyroid Web site and writes a newsletter on hypothyroidism. She has written other books, including *The Thyroid Diet: Manage Your Metabolism for Lasting Weight Loss*

Salt: Your Way to Health

by David Brownstein, MD

Salt: Your Way to Health is chock full of gleaming information on the clinical uses of unrefined salt, and it's highly recommended for both patients and all health care practitioners. Dr. Brownstein not only debunks the low-salt diet = lowered blood pressure myth, he gives you clear and concise reasons for adding unrefined salt to one's daily regimen. He shows you how an adequate salt intake is necessary for proper functioning of the hormonal system and the immune system and that includes proper ADRENAL FUNCTION. In addition, Dr. Brownstein describes the therapeutic uses of unrefined salt helping to treat many different conditions including: fatigue, fibromyalgia, headaches, adrenal disorders, thyroid disorders and much more.

Could It Be B12?: An Epidemic of Misdiagnoses

by Sally M. Pacholok RN and Jeffrey J. Stuart DO

A silent crippler stalks millions of Americans and you may be one of them...is how this excellent book starts out about the common problem of a B12 deficiency. The book describes the different manifestations of low B12; including the fact that it can mimic MS or other neurological disorders, as well as cause mental illness, learning disabilities, impaired immune function, plus more. Low B12 can be a common disorder found in thyroid patients, as well. A must read for those who suspect they have low B12.

Sally, an emergency department nurse, and her physician husband Jeff worked together to produce this book since they strongly felt like low B12 has been overlooked by the general medical field and is often misdiagnosed. Sally is a strong proponent for the methylmalonic acid test rather than the blood serum B12 test to accurately detect low B12.

WEBSITES (in no particular order):

www.drrind.com: One of our favorite sites for adrenals. Downloadable graph and instructions for temperature-taking–a must!

www.drlam.com: Check out his Adrenal fatigue page–an excellent overview! He also covers the connection with adrenal fatigue and insulin resistance and estrogen dominance. Good tips on how to eat with adrenal fatigue.

www.thyroidmanager.org: Updates and articles on all facets of thyroid disorders. plus where you can find the reference that the thyroid produces an equivalence of 3 - 5 grains, or 94 - 110 µg T4 and 10 - 22 µg T3 daily

www.naturalthyroidchoices.com: Website by Stephanie, who won her battle with thyroid cancer, plus information on children and thyroid.

www.breastcancerchoices.org: This website shows a strong connection between the use of iodine (which also benefits your thyroid) and breast health.

www.drlowe.com: Website by Dr. Lowe, who has always been on target about thyroid disease and the use of desiccated thyroid. Has good information on why Armour is good for your heart.

www.drginahoneyman.com: Website of Dr. Honeyman, who heads the Center for Metabolic Health and who co-authored a Metabolic book with Lowe.

http://thyroid.about.com: Informative thyroid website by Mary Shomon; includes many good interviews with Dr. David Derry of Canada

www.adolescentthyroid.com: A non-profit and sweet website created by Maggie to promote awareness, support, and research of Adolescent Thyroid Diseases.

http://altsupportthyroid.org: Comprehensive thyroid website, which also contains a compilation of information on suppressed TSH (which you will have on an optimal dose of Armour)

www.thyroidresearch.com: This thorough site by Edna of the UK provides a wealth of information on articles and research related to thyroid

www.tuberose.com/Adrenal_Glands.html: Excellent overview of adrenals

www.geocities.com/chrisgj@sbcglobal.net/Hypopituitary_supplement.html?200611: Support website by Chris for Hypopituitary issues

www.geocities.com/thyroide: Susanne of France has worked hard over the years, and continues to do so, with this thyroid/adrenal site in different languages

www.thyroiduk.or:g United Kingdom's thyroid site by Lyn Mynott

www.tpa-uk.org.uk: Thyroid Patient Advocacy-UK-thyroid advocacy site working to increase awareness for proper diagnosis and appropriate treatment for this disease

www.armourinfo.freeuk.com: UK's Sheila Turner's website for downloadable & printable info to give to your doc

www.bestweb.net/~om/thyroid: A sweet and very informative website concerning thyroid and adrenals

http://www.convert-me.com/en/convert/length: If you need to convert Fahrenheit to Celsius (or know the conversion of ANY kind of measurement), I highly recommend this site

PATIENT-to-PATIENT groups (not in any particular order):

NOTE: This book is firmly not recommending these sites as a substitute for a relationship with a good doctor. They are for informational purposes only. Thus, the author and publisher of this book takes no responsibility for your decisions in using these sites–that is your responsibility, or between you and your doctor.

www.realthyroidhelp.com: This is a website of forums based on being hypothyroid and related issues. Created by Deborah, and assisted with several intelligent moderators. You will need to register before you can post.

http://health.groups.yahoo.com/group/NaturalThyroidHormones: This yahoo group has been in existence since 2002, and focuses on the use of desiccated thyroid like Armour and other brands. You have to request membership and be detailed on why you are asking.

http://health.groups.yahoo.com/group/NaturalThyroidHormonesADRENALS: This is a sister group to the above, but it focuses on adrenal fatigue. You will need to request membership and be detailed on why you are asking

http://www.intlhormonesociety.org/forum: These forums address hypothyroid and adrenal issues, and have an international touch.

http://health.groups.yahoo.com/group/RT3_T3: This group is for those who have a high Reverse T3 lab, and/or don't seem to be getting enough free T3 no matter how high their desiccated thyroid is.

http://health.groups.yahoo.com/group/iodine: Run by a thyroid cancer patient who beat thyroid cancer, this is a group that focuses on the use of iodine for good health.

h*ttp://health.groups.yahoo.com/group/thyroidless:* For those completely without a thyroid, whether through RAI, surgical removal or other issues, this group is run by the vivacious Sam who has regained her health and well-being with desiccated thyroid and support of her adrenals.

http://health.groups.yahoo.com: The main website where you can search for all thyroid and related issues groups

http://www.drplechner.com: Though Dr. Alfred Plechner will call himself a "plain wrap" Veterinarian, he had made brilliant discoveries about the adrenal status and treatment of animals that could aptly be compared to humans! He has also written a good book called Pets at Risk: From Allergies to Cancer, Remedies for an Unsuspected Epidemic.

http://health.groups.yahoo.com/group/atomicwomen: A friendly group for the discussion of I-131 (RAI) as a therapy for Graves' Disease.

T-SHIRTS and BUMPER STICKERS to spread the word:

www.stopthethyroidmadness.com/t-shirt: Here's where you can order thyroid advocacy t-shirts plus bumper stickers to spread the word to other patients.

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